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CHANGING CONCEPTIONS RELATIVE
TO THE PLANNING OF LESSONS

BY

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LOIS COFFEY MOSSMAN

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CHANGING CONCEPTIONS RELATIVE TO THE PLANNING OF LESSONS

CHAPTER I

LESSON-PLANNING IN THE UNITED STATES PREVIOUS TO THE HERBARTIAN MOVEMENT

I. BEFORE 1820

Previous to 1820 there had developed in the United States some significant public interest in education. The dame school, the writing school, and the Latin grammar school of the eighteenth century were being supplemented by the City School Societies. These latter were results of the efforts to establish free schools and make them adequate for caring for the large numbers in the cities. In all of these schools, the acquirement of knowledge was usually the objective. The method of instruction in use was largely catechetical. There seemed to be little question as to what subject matter should be taught. "The New England Primer," the Catechism, the Bible, and Noah Webster's "Speller" constituted the chief texts.¹ Such a conception of teaching embodied little notion of planning lessons as we now understand it.

II. THE PERIOD FROM 1820 TO 1860

The period from 1820 to 1860 is marked by the growth of a professional conception of teaching. The professional training of teachers may be said to have begun with the establishment of the first teacher-training school at Concord, Vermont, in 1823, by Samuel R. Hall.² Among the early professional books³ for teachers was one written by Mr. Hall in 1829. While he discussed the teaching of each subject, including such new subjects as geography, history, and composition, the only suggestion relative to the preparation of a lesson was that of preparing at home the copies in the copy books. The first teachers' institute was organized by Henry

¹Cubberley, Ellwood P., *Public Education in the United States*, pp. 25-96, 215.

²Cubberley, *op. cit.*, p. 287.

³Hall, Samuel R., *Lectures on School-Keeping*, 1829.

Barnard in 1839 in Connecticut.⁴ This same year marks the establishment of the first state normal school in the United States at Lexington, Massachusetts. By 1860, eleven normal schools had been established.

Possibly the most significant contribution, in this period, to teaching as a profession came from David Page, first president of the New York State Normal School at Albany. This was his book on *The Theory and Practice of Teaching*, written in 1847. In this book, as well as in an address delivered before the American Institute of Instruction, 1844, he argued for a "Plan of the Day's Work," whereby he meant "a definite arrangement in the *day's work* so that every class has something to do, and a definite time to do it in."⁵ This is the earliest evidence so far found in America of anything that looks toward system in ordering the work of teaching.

In the *Theory and Practice of Teaching*⁶ we find the following relative to preparation of lessons: "*The teacher should especially prepare himself for each lesson he assigns. . . . The teacher should daily study his class lesson. . . . In this daily study, he should master the text-book upon the subject; and, more than this, he should consider what collateral matter he can bring in to illustrate the lesson.*" Mr. Page further suggests the keeping of a commonplace book in which the teacher records illustrative stories, facts, incidents, anecdotes, etc., pertinent to each subject. This book is to be used to furnish material as needed.

When questioned as to how he trained his students in the art of teaching, Mr. Pierce, first principal of the State Normal School at Lexington, Massachusetts, said:

"You . . . ask me for a full account of my manner of instruction in the *art of teaching*. Two things I have aimed at especially, in this school: (1) To teach *thoroughly* the principles of the several branches studied so that the pupils may have a *clear and full understanding* of them; (2) to teach the pupils by my own example, as well as by *precept*, the best way of teaching the same thing effectively to others. I have four different methods of recitation: First, by question and answer; second, by conversation; third, by calling on one, two, three, more or fewer, to give an analysis

⁴Cubberley, *op. cit.*, p. 242.

⁵Page, David, *Advancement in the Means and Method of Instruction*, pp. 25-26. An address delivered before the American Institute of Instruction at its Fourteenth Anniversary at Pittsfield, Massachusetts.

⁶Pages 141-143.

of the whole subject contained in the lesson; and fourth, by requiring written analyses, in which the ideas of the author are stated in the language of the pupils. . . . At all the recitations we have more or less discussion. . . . Sometimes, instead of reciting the lesson directly to me, I ask them to imagine themselves for the time acting in the *capacity of teachers*. . . . At many of our recitations more than half the time is spent with reference to teaching the *art of teaching*.⁷

Throughout this period of growing interest in teaching as a profession, we find no evidence of any notion of a procedure to be followed in teaching other than that of making sure that the children *know* the facts and of explaining those facts which are not understood. No one seems to have thought that instruction could be improved by any planning other than that of learning the facts and perhaps getting some illustrations.

III. THE PERIOD FROM 1860 TO 1890

I. *The Influence of Object Teaching upon the Preparation of Lessons*

In 1860, Dr. E. A. Sheldon saw an exhibit at Toronto, Canada, of object teaching as it had been developed in England by Charles Mayo and his sister Elizabeth. Dr. Sheldon returned to Oswego, New York, where he was superintendent of schools, and proposed to his teachers that they study this method of teaching. So eager did they become for help in their study that they contributed—some as much as half a year's salary—to a fund to bring to them Miss M. E. M. Jones from the Home and Colonial Training Institution, London, where she had worked with the Mayos. In 1862, Hermann Krüsi, son of Pestalozzi's first assistant at Yverdon, came to the assistance of Dr. Sheldon in developing the Pestalozzian ideas of object teaching as based upon perception.⁸ The normal school established at Oswego from these beginnings became the center of national interest in education because of the pedagogical theories it fostered and developed there. Of these theories, that of object teaching is perhaps the most significant in shaping practice relative to *form* of class instruction. The following lesson illustrates the kind of procedure embodied in this theory:

⁷Report of Commissioner of Education, 1888-1889, Vol. 1: 283.

⁸Hollis, A. P., *The Contribution of the Oswego Normal School to Educational Progress in the United States*, 1898.

“A Piece of Bark.

“What is this? A piece of bark. All look at it. Where do we find bark? On trees. On what part of trees? Look and see. (The teacher brings in a piece of the stem of a tree on which the bark still remains.) On the outside. Repeat together—‘Bark is the outer part of the stems of trees.’

“Look at the bark; what do you perceive? It is brown. Repeat—‘Bark is brown.’ Look again; is it like glass? No, we cannot see through it. What can you say of it then? We cannot see through bark. Compare it with glass. It does not shine. When anything does not shine at all, it is said to be *dull*; what is the bark? It is dull. Repeat—‘The bark is dull.’ Show me some things in the room that are dull. Now feel the bark. It is rough. And what more? It is dry. Now look: (the teacher separates the fibre) it has strings or hairs. These strings or hairs are called fibers, and we say the bark is fibrous. Repeat—‘The bark is fibrous.’ Some plants have very fibrous stems, and are very useful to us on this account; here are some of the fibers of hemp; and here are some of flax, which supplies much of our clothing. I think you can find out something more if you feel the bark again. Yes; it is hard.

“Now repeat all you have said. ‘Bark is the *outside covering of the stems of trees*; it is brown; we cannot *see through it*; it is *rough, dull, dry, hard, and fibrous*.’”⁹

In 1862, Dr. Sheldon, assisted by Miss M. E. M. Jones and Professor H. Krüsi, published *A Manual of Elementary Instruction*, for the Use of Public and Private Schools and Normal Classes; Containing a Graduated Course of Object Lessons for Training the Senses and Developing the Faculties of children.” In the introduction we find the following:

“Model lessons are given, and then subjects suggested on which similar lessons may be drawn up. The models should be carefully examined and analyzed, and, in the case of classes in training, the original sketches should in every instance be submitted to the criticism of the teacher. In some of the lessons, general directions are more particular; while many are drawn out at full length, including both questions and answers. In any case, they are only designed as suggestions and models to guide teachers in working out their *own plans and methods*.”¹⁰

The authors stressed the importance, in preparing teachers for this work, of training students to write out notes or sketches (outlines), consisting of:

1. Matter
2. Points contained in the title

⁹Mayo, Elizabeth, *A Manual of Elementary Instruction, for Infant School and Private Tuition*, pp. 102–103. London, 1860.

¹⁰Page 8.

3. Terms or information given
4. Ideas developed
5. Illustrations

By preparation, they meant the writing of the analysis, or sketch, of the lesson, not the writing of full detailed questions and answers. In some of the sketches of lessons given we find the use of the two-column form, matter in the left column and method in the right column.^{11, 12}

From the beginning in Oswego, the use of object teaching became general in educational circles. In the annual report of the Trenton Normal School for 1862, we find the following indication of the acceptance of object teaching:

"Under this plan, known as the object system, the special preparation for the school room duties is careful and minute. . . . The consequence is that very young teachers acquire a degree of ease, skill, and dexterity in conducting the exercises of a school that is impossible under any other less thorough plan."¹³

Examination of books, magazines, and reports of educational meetings, published in the three decades following the introduction of object teaching at Oswego, shows its wide acceptance as a definite method and form of instruction. It was based upon a psychology which stressed prominently the significance of perception in learning. It was based upon a philosophy of very limited pupil activity. It was based upon a theory of pupil acceptance of subject matter handed to him. It made very slight provision for teacher initiative and no provision for pupil initiative. It assumed teacher dictation of every step in the learning process.

2. *The Growing Dissatisfaction with Methods of Teaching Proposed*

Search through the educational writings of this period soon reveals a growing dissatisfaction with the proposed methods of teaching.¹⁴ Among instances, the words of J. W. Dickinson in 1880 may be indicative:

¹¹Pages 16-42.

¹²In 1879, J. R. Blakiston of Trinity College, Cambridge, used the double column of subject matter and method in a book entitled *Hints on School Management*.

¹³*Seventh Annual Report of the Trenton, New Jersey, State Normal School*, 1862: 26.

¹⁴See Buckham, H. B., *N. E. A. Report*, 1873: 196-197; Soldan, F. Louis, *N. E. A. Report*, 1874: 245-253; Dunton, Larkin, *N. E. A. Report*, 1874: 242; Gilchrist, J. C., *N. E. A. Report*, 1881: 201-206; Dickinson, J. W., *N. E. A. Report*, 1880: 101.

"What we need now is some wise man to take hold of our unsystematized elementary work, and organize it with reference to the relations different topics of elementary knowledge hold to the science. We need also to have our methods of teaching conform more fully to the laws of mental activity and mental growth."¹⁵

In his report for 1885-1886, the Commissioner of Education said:

"There has been too great a tendency on the part of many school officers to adopt new methods of teaching, solely for the sake of novelty, and to show too little regard for thoroughness in instruction."¹⁶

"By some this type of teaching and planning, which seems to have grown out of object teaching, came to be regarded as tending toward the dangerline of killing individuality, of crushing out spontaneity, of dwarfing the teaching ingenuity by reducing everything to the dead level of certain so-called philosophical methods."¹⁷

3. The Practice of Normal Schools Relative to Lesson-Planning

If we consider the evidence available showing the methods used by the normal schools in training student teachers during the period from 1860 to 1890, we find little to indicate that attention was given to training in planning lessons. Records of criticisms of student teaching in the Trenton, New Jersey, State Normal School, published in 1867-1868, contain such expressions as these:

" . . . since the lady had three days for preparation of the lesson."

"One secret of her success was that she had given the reading lesson much home practice and preparation."

"She evinced thorough preparation."¹⁸

In the Trenton Annual Report for 1870, we find this, "I recommend Miss —— to Dr. Hart as a good teacher: first, because she learns her lesson."¹⁹

In 1875, the Ypsilanti, Michigan, State Normal School is reported as following this practice:

¹⁵N. E. A. Report, 1880: 101.

¹⁶Page 34.

¹⁷Sabin, Henry, N. E. A. Report, 1891: 505-525.

¹⁸Report of Commissioner of Education (Henry Barnard), 1867-1868: 733. Also Hart, John Seely (Principal of New Jersey State Normal School), *In the School Room*, pp. 145-158, 1868.

¹⁹15th Annual Report of the Trenton, New Jersey, State Normal School, p. 23.

"The critic has a meeting of student-teachers at the close of each day. . . . Then the following day's work is sketched. Pupil teachers then during the evening frame the succeeding day's work, and submit it to the critic the next morning for approval."²⁰

In 1877, J. C. Greenough reported the Rhode Island State Normal School as training students to the following class procedure:

1. "Present the real object of study to the mind of the pupil, whether the object be mental or material. If the object is material and cannot be presented in the class room, present an illustration.
2. "By pertinent questions, call attention to that of the object which is to be taught, thus directing the mind of the pupil in a natural or logical analysis, and leading him to express the ideas occasioned.
3. "Train the pupils to the correct use of language in expressing their ideas and thoughts."²¹

The *Report of the Commissioner of Education* for 1883-1884 contains the following relative to the training of teachers:

"It is sometimes objected that here too much stress is placed upon methods. Such is perhaps the tendency, but those familiar with the work going on . . . are aware that it is a tendency which is watched and restrained. The ideal of pedagogical training, it must be remembered, is as yet imperfectly formed. . . . The consideration of . . . the order and means by which they (the subjects of elementary instruction) may best be presented to the child's attention . . . are the matters that are urged upon the attention of normal students."²²

In 1883, Charles DeGarmo mentioned the following in a list of seven qualifications of student teachers:

- "2. He should learn to be skillful in imparting knowledge.
- "4. He should learn to arouse even sluggish minds to self-activity.
- "6. He should learn to acquire a comprehensive grasp of the teaching of any given subject.
- "7. He should be able to ask and answer the question not merely how shall I teach this, but why I teach it at all."²³

This statement of Professor DeGarmo was made just previous to his study in Europe.

²⁰*N. E. A. Report*, 1875: 148, A Discussion.

²¹*N. E. A. Report*, 1877: 158.

²²*Report of Commissioner of Education* (John Eaton), 1883-1884: CIX.

²³*N. E. A. Report*, 1883: 47-54.

The practice of writing a detailed plan by the pupil teachers in Hamburg was reported to the National Council of Education in 1885,²⁴ as was also a similar practice reported as being followed in the normal school at Frederickton, N. B., including the practice of writing daily plans.²⁵ These facts would indicate an awareness of the possibility of training in definite lesson plans.

In 1887, the State Normal School at Mankato, Minnesota, is reported as teaching daily preparation by the teacher.²⁶

In this same year, Dr. J. H. Hoose, President of the Cortland, New York, State Normal School, advocated a developing method, proceeding by question and answer, using objects as substantial and collateral aids and appliances.²⁷

The growing discontent, already mentioned, with any scheme of instruction and preparation thus far proposed may be found among the normal school teachers. The following illustrates this:

"He (the critic) has no general principles out of which may perpetually spring new directive energies for new conditions. Topic-books, filled with the records of Oswego methods, will prove of no value. The poor empiric will find to his amazement that the given elements of his own problem are not found in terms of his topic-book—unless, perchance, he may be so blind as to deal out his abstracts and plans of lessons in regular order as so many recipes might be read out of a cookbook.

"The blanks and plans of work I have examined into in use in the normal schools of America suggest little attempt at a division. But to attempt any process of criticism without an adequate theory of the art of knowing is like trying to cure dyspepsia with plaster and liniment."²⁸

Up to 1890, a few statistical studies of normal schools had been made.²⁹ Some made no reference to the question of planning les-

²⁴Committee on Normal School Education, C. C. Rounds, Chairman, *N. E. A. Report*, 1885: 429-436.

²⁵Boyden, Albert C., *N. E. A. Report*, 1886: 389-392.

²⁶McCleary, J. T., *N. E. A. Report*, 1887: 253-254.

²⁷*N. E. A. Report*, 1887: 98.

²⁸Gray, Thomas J., *N. E. A. Report*, 1890: 750-752. Further evidence of this search for principles and of discontent with methods in use may be found in the following: Parr, S. S., *N. E. Report*, 1888: 467-476; Allen, Charles H., *N. E. A. Report*, 1888: 496-503; Washburne, Lucy M., *N. E. A. Report*, 1888: 485-494.

²⁹These include: Ogden, John, *N. E. A. Report*, 1874: 216-229; Hunter, Thomas, *N. E. A. Report*, 1884: 238-248; Taylor, A. R., *N. E. A. Report*, 1886: 393-402; Gray, Thomas J., *N. E. A. Report*, 1887: 472-480; Addis, Wellford, *Report of Commissioner of Education*, 1888-1889, Chap. 13: 354; Gray, Thomas J., *N. E. A. Report*, 1890: 751-752.

sons. In the study of 1887, President Gray found that a few schools required a formal sketch of the lesson by pupils in the practice and method classes, *including full written questions and answers*. Most required only a general statement of subject matter and plan. In the study by Mr. Addis, it was found that a surprisingly large number of schools were requiring "sketches of lessons containing formal questions and presumptive answers." The study of 1890 revealed that some of the schools had formal blanks which they used in training teachers to prepare lessons.

4. *The Attitudes of Books of Pedagogy, Published in This Period, Relative to Lesson-Planning*

A number of books were written in this period by leading educators in which much detailed help was given to teachers, but we find in them no suggestions relative to planning lessons.³⁰ Several books³¹ advise preparation of lessons by the teachers but give no hint as to what preparation means other than learning the subject matter, deciding what one shall stress, and possibly phrasing questions or preparing apparatus.

In 1887, James L. Hughes published a book on *Mistakes in Teaching* in which he condemned any stereotyped plan of presenting a lesson but advised careful preparation of an elastic plan. In 1884, A. P. Southwick wrote a book entitled *A Quiz-Book on the Theory and Practice of Teaching*, in which he stated that the essentials of a recitation are: (1) A brief reproduction of the preceding lessons, (2) A brief reproduction of the preceding lesson, (3) Rehearsal and critical examination of the daily lesson, (4) Recapitulation of the daily lesson, and (5) Adequate preparation for the advanced lesson. This same year Edwin C. Hewett, president of the Illinois State Normal University, wrote *A Treatise*

³⁰See among others: Hurt, John Seely, *op. cit.*; Sypher, J. R., *The Art of Teaching School*, 1872; Sweet, John, Principal of San Francisco Girls' High School and Normal Class, *Methods of Teaching. A Hand-Book of Principles, Directions, and Working Models for Common-School Teachers*, 1880; Parker, Francis W., *Notes of Talks on Teaching*, 1883; Johonnot, James, *Principles and Practice of Teaching*, 1886; Howland, George, Supt. of Schools, Chicago, *Practical Hints for the Teachers of Public Schools*, 1889.

³¹See among others: DeGraff, E. V., *The School Room Guide to Methods of Teaching and School Management*, 1877; Wickersham, James, *School Economy*, 1864; Phelps, Wm. F., *The Teacher's Hand-Book*, 1874; Raub, Albert N., *Methods of Teaching: Including the Nature, Object, and Laws of Education, Methods of Instruction, and Methods of Culture*, 1883; Gregory, John M., former President of State University of Illinois, *The Seven Laws of Teaching*, 1886; Greenwood, J. M., Supt. of Schools, Kansas City, *Principles of Education, Practically Applied*, 1887; Stewart, I. N., *A Hand-Book for Teachers*, 1889.

on *Pedagogy* in which he stated that the recitation includes (1) Testing, (2) Instruction, (3) Reviewing, (4) Assigning, and (5) Drilling. "The teacher who is to give an oral lesson should go before the class with the matter clearly mapped out in his own mind, and perhaps drawn out in writing, in the form of a scheme. He should have clearly determined what points he proposes to reach, and in what order they should be reached."³²

The effort to find a better method of conducting the recitation, which began with the introduction of object teaching, finds its culmination, so far as lesson-planning is conceived as an aid, in the book by Arnold Tompkins, entitled *Philosophy of Teaching*,³³ published in 1891. In these pages he offered reasons for very detailed planning and gave this careful analysis of the teaching process upon which the planning should be based:

"The teaching process	Subjective phase	{	1. Purpose, or felt need of child.
			2. Experience, mental steps required by need.
			3. Means of producing the experiencé, or mental steps.
	Objective phase	{	4. Means of producing the mental steps.
			5. Mental steps actually taken by child.
			6. Need of child satisfied, or purpose realized."

Following this analysis, he gave by way of illustration a plan for teaching the idea, pyramid, to third-reader grade. The plan included:

"Steps in the movement:

1st step, leading to the generalization of the attribute, solid.

2nd step, leading to the generalization of the attribute, having a flat base bounded by straight lines.

3rd step, leading to the generalization of the attribute, bounded by triangles meeting in a point.

"Each of these steps consists of (1) Observing, (2) Abstracting attention from all other attributes and fixing on this one, (3) Comparing and contrasting, finding all differences and likenesses, (4) Generalizing the attribute under consideration.

4th step, resulting into a synthesis of three elements in above three steps and formation of definition. Includes (1) Observing, (2) Comparing and contrasting, (3) Generalizing.

5th step, inferring the unity of all the attributes to mean the one attribute of stability; the purpose of the form. This attribute should be applied to historical pyramids, and to pyramidal objects."

³²Page 177.

³³Pages 29-35.

Dr. Tompkins seems to have retained much of the theory of object teaching and blended this with the philosophy of inductive thinking. The publication of this plan came at the time when the Herbartian movement was beginning to be felt with its theory of the formal steps of instruction.

SUMMARY

In the period previous to 1820, we can find little definite evidence of interest in instruction as such.

In the period from 1820 to 1860 we find:

1. A growing interest in teaching as a profession.
2. The development of the idea of a daily schedule.
3. Little thought of lesson preparation other than gaining knowledge of subject matter.

In the period from 1860 to 1890, we find:

1. An attempt to shape instruction by the theories of object teaching.
2. In later years some dissatisfaction with object teaching because of its inadequacy in explaining the learning process and because of its tendency toward formalism.
3. A search for principles underlying method of instruction.
4. An attempt on the part of some to state a teaching procedure.
5. The settling, by the normal schools, into a rather definite procedure in training teachers through observation and practice teaching.
6. The development of a custom of writing lesson plans.
7. The absence of any agreement as to the form of lesson plans.
8. In later years a tendency to ask for the statement of the aim and detailed questions with probable or imagined answers.

CHAPTER II

HERBARTIANISM AS THE SOURCE OF THE FORMAL STEPS OF INSTRUCTION

I. THE PSYCHOLOGY AND PHILOSOPHY OF HERBART UNDERLYING HIS THEORY OF INSTRUCTION

A search for the beginnings of formal lesson-planning requires that we trace Herbartianism to its source in Europe. John Frederick Herbart (1776-1841) is the inspiration of this movement. The formal steps of instruction were based upon his psychology and philosophy.

Herbart taught that the soul originally has no content whatever. He called it a monad or real. The senses are the gateway through which comes mental life.¹ This real is capable of but one sort of activity, that of entering into relation with the external world through the medium of the nervous system, in its efforts at self-preservation, in resisting the impacts of presentments. The resultants of such experiences are called ideas, or, more precisely, the stuff of which ideas are made. It is by such ideas that the individual grows. These in turn become the active agents of the individual. They are the source of activity. The process by which a new presentation finds its proper place in the aggregate already built up and in turn modifies it, is called apperception, from which we get the notion of apperceptive mass. The kind or quality of this depends upon the kinds of ideas acquired, which in turn depend upon what has entered through the senses.² Ideas once acquired tend to react to ideas similar in kind and to repel those dissimilar. Presentations through the senses are then the elements of mental life.

The theory of instruction and the consequent work of the teacher are based upon this theory of reals, presentations, and ideas—the whole process of apperception. The child becomes what the ideas, presented to him, make of him.³ Through careful selection

¹Ufer, Christian, *Pedagogy of Herbart*, pp. 2-5; Felkin, Henry M. and Emmie, *The Science of Education*. Introduction, p. 33; De Garmo, Charles, *Herbart and the Herbartians*, pp. 27-31; Adams, John, *The Herbartian Psychology Applied to Education*, pp. 46-71.

²Adams, *op. cit.*, pp. 46-71.

³Felkin, *op. cit.*, p. 36.

of the presentments which stimulate the child's activity, we can make of him what we will.⁴ In view of this theory of the teacher's responsibility, Herbart assigned to him two tasks: (1) the division of the material of instruction into method wholes, and (2) the planning of a psychological way of presenting this material.⁵ There was the assumption that the proper material was predetermined by higher authority than the teacher, that he had no responsibility for its selection.

II. THE FORMAL STEPS OF HERBART AS EMBODYING THE MOVEMENT IN INSTRUCTION

Herbart only suggested what his followers developed and used extensively relative to the process involved in instruction. Learning was summed up under two activities:

1. The attainment of clear, distinct percepts, involving:
 - a. The preparation of necessary, related, and already known material.
 - b. The presentation of new ideas.
2. The deduction from them of accurate general notions, involving:
 - a. The comparison of all known cases.
 - b. The extraction of the essential and generally valid.

By adding one more step, the application of knowledge, the process of learning is completed. Thus, from this analysis, were deduced these steps:

- "Step I. Clearness: a. Analysis (preparation).
b. Synthesis (presentation).

Step II. Association.

Step III. System.

Step IV. Method (application, function)."⁶

"The trinity of instruction embraces: (1) the apperception or assimilation of individual notions; (2) the transition from the in-

⁴Herbart recognized that the child is possessed of an innate endowment making for individual differences. But, with him, environment was the big thing and innate endowment interfered with the effect of environment. He felt that all individual differences were so much admixture of error, and that, if it were not for them, the ideas would accomplish much more. See (1) Herbart, *Application of Psychology to the Science of Education*, p. 59; (2) Herbart, *Psychology*, p. 120; and (3) Herbart, *Letters and Lectures on Education*, pp. 58, 76, 103 f.

⁵Mulliner, Beatrice C., Translation of Herbart's *The Application of Psychology to the Science of Education*, Introduction, p. cvi; De Garmo, Charles, *Essentials of Method*, p. 55; Rein, W., *Outlines of Pedagogics*, p. 140.

⁶Mulliner, *op. cit.*, pp. cvi-cx; De Garmo, *op. cit.*, p. 88.

dividual to the general (classes, rules, principles, maxims, etc.); (3) the return from the general notion to new fields of particulars."⁶

After Herbart was called to Kant's chair at Königsberg in 1809, he established a pedagogical seminary with a practice school. This was the fulfillment of a long cherished theory⁷ that "in education, theory and practice should always go together." In 1832, Heinrich Gustav Brzoska, a student of Herbartianism, advocated the establishment of such a seminary at Jena, but died before accomplishing his purpose. Herbart died in 1841. In 1843, Karl Volkmar Stoy, a lecturer at Jena, founded an educational society among his students. Through this he succeeded in establishing a Seminar School in 1844. Thus Jena became the center of Herbartian doctrines under the leadership of Stoy. He left the University in 1866, returning in 1874, and the seminary became less active until Dr. W. Rein took up the work in 1886. The Pedagogical Seminary, as developed by Professor Rein, came to have an international reputation as a center of educational theory. At Leipzig, Ziller, another apostle of Herbartianism, developed a center of educational thought. To these two men we must look for the theory of instruction from which came lesson-planning by the formal steps.

SUMMARY

1. The lesson plan, consisting of formal steps, finds its beginnings in the theories of Herbart.
2. Herbart's suggestions relative to the procedure in instruction are based upon his psychology and his theories relative to the development of the individual.
3. He taught that the soul is originally a monad, or real, possessed of one capacity, that of activity in resisting the presentations coming through the senses. Through this activity in self-preservation develop ideas from the material thus presented.
4. These presentations become through the process of apperception the ideas which come in turn to constitute the active mind. Activity finds its source in these ideas.
5. Desirable development of the individual depends upon: (a) presentation of the right material to develop right ideas, and (b) methods of presentation which will insure the most desirable apperception of the presented material.

⁷Felkin, *op. cit.*, p. 17.

6. The true method of instruction consists of four formal steps: (a) clearness; (b) association; (c) system, and (d) method.
7. As a means of training teachers to apply his teachings in real situations, Herbart established a Pedagogical Seminary accompanied by a practice school.
8. Dr. Stoy, a student of Herbartian theories, established a pedagogical seminary in Jena, soon after the death of Herbart, which became a center of world interest in studying educational theory.
9. Dr. Rein, who later took up Dr. Stoy's work at Jena in the conduct of the seminary, and Professor Ziller at Leipzig became the apostles of Herbartianism, to whom America must look in tracing the history of lesson-planning as it developed in this country.

CHAPTER III

THE HERBARTIAN MOVEMENT IN EDUCATION IN THE UNITED STATES

I. THE BEGINNINGS OF CONTACT WITH HERBARTIAN IDEAS

During the third decade of the nineteenth century we find traces of an interest in the European methods of education. The decade from 1880 to 1890 shows a marked growth of interest in the schools of Germany.¹ In the last decade of the century references to study in Germany became a commonplace of an educational magazine or of an educational conference. The files of the *Educational Review*, beginning in 1891, illustrate this quite forcibly.

Prominent among those who went to Europe to study were Nicholas Murray Butler, who attended Berlin and Paris in 1884-1885; Charles De Garmo, who received the degree of doctor of philosophy from Halle in 1886; Levi Seeley, Leipzig, 1886; Charles McMurry who received his doctorate from Halle in 1887; Frank McMurry, Ph.D., Jena, 1889; Elmer Ellsworth Brown, Halle-Wittenberg, 1889; Herman T. Lukens, Jena, 1891; C. C. Van Liew, Ph.D., Jena, 1893; John Hall, Jena, 1892-1895; and James E. Russell, Ph.D., Leipzig, 1894, and student at Jena, Leipzig, and Berlin 1893-1895. In the *Report of the National Education Association* for 1887, page 467, we find Dr. De Garmo introduced to the audience as one just returned from his study abroad. This introduction was in connection with his address on "The Normal School System of Germany." Dr. Frank McMurry's first recorded appearance before the National Education Association was in 1892, when he spoke on "The Value of Herbartian Pedagogy for Normal Schools."

II. THE METHOD USED IN DISSEMINATING HERBARTIANISM, ESPECIALLY THE THEORY RELATIVE TO THE FORMAL STEPS OF INSTRUCTION

This group of men became the nucleus of the Herbartian movement in this country. They organized the Herbart Club at the

¹See the *Report of the Commissioner of Education for 1883-1884* for a lecture by Dr. Stoy, one of the professors from Jena. The Report for 1885-1886 contains a "Report on German Normal Schools and Teachers' Seminaries."

meeting of the National Education Association at Saratoga in 1892. In 1893, thirteen members translated into English Dr. Karl Lange's *Apperception, a Monograph of Psychology and Pedagogy*. In 1895, at the Denver meeting of the National Education Association, the National Herbart Society was organized, for "the aggressive discussion and spread of educational doctrine." The nine members of its governing board were Elmer Ellsworth Brown, Nicholas Murray Butler, John Dewey, Charles De Garmo, Wilbur S. Jackman, Charles McMurry, Frank McMurry, Levi Seeley, and C. C. Van Liew. This society was supplanted in 1902 by the organization of the National Society for the Scientific Study of Education, later known as the National Society for the Study of Education.

These men were very active in their efforts to make the teachings of the Herbartian School available in English and to apply the teachings to elementary school work in the United States. In addition to the translation of Lange's *Apperception*, mentioned above, the following translations were made by various individuals:

- 1890—Lindner, Gustav Adolf. *Manual of Empirical Psychology*. Translated by Charles De Garmo. Heath.
- 1891—Herbart, J. F. *Textbook in Psychology*. Translated by Margaret K. Smith. Appleton.
- 1893—Rein, W. *Outline of Pedagogics*. Translated by C. C. and Ida J. Van Liew. Swan, Sonnenschein and Company, London.
- 1894—Ufer, Christian. *Introduction to Pedagogy of Herbart*. Translated by J. G. Zinser, authorized translation under the auspices of the Herbart Club. D. C. Heath.
- 1896—Herbart, J. F. *A B C of Sense Perception and Minor Pedagogical Works*. Translated by William J. Eckoff. D. Appleton.
- 1901—Herbart, J. F. *Outlines of Educational Doctrine*. Translated by Alexis F. Lange, annotated by Charles De Garmo. Macmillan.
- 1907—Compayré, Gabriel. *Herbart and Education by Instruction*. Translated by Maria E. Findlay. Thomas Y. Crowell and Company.

A number of books were written by these disciples of the Herbartian theories. Prominent among these in modifying thinking among teachers in this country are:

- 1889—De Garmo, Charles. *The Essentials of Method: A Discussion of the Essential Form of Right Methods in Teaching*. Heath.
- 1890—McMurry, Charles. *How to Conduct the Recitation and the Principles Underlying Methods of Teaching*. A. Flannagan.
- 1892—McMurry, Charles. *The Elements of General Method Based on the Principles of Herbart*. Public School Publishing Company, Bloomington, Illinois.

1894—De Garmo, Charles. *Herbart and the Herbartians*. Scribners.

1897—McMurry, Charles A. and McMurry, Frank M. *The Method of the Recitation*. Public School Publishing Company, Bloomington, Illinois.

These Herbartians were interested in several of the fundamental doctrines taught by Herbart and his disciples. Those among them most interested in lesson-planning and the formal steps of instruction were Charles McMurry, Charles De Garmo, and Frank McMurry. We find evidence of this interest in the forms of instruction, in most of the things they wrote. They modified the steps in instruction as developed by Herbart and as changed by Rein. The following diagram is taken from Professor Rein's *Outlines of Pedagogics*.²

FORMAL STEPS

I. Dorpfeld and Wiget

- | | | | |
|----|---------------------------|------------------------------------|----------------|
| 1. | { Perception
(Percept) | (a) Introduction
(b) Perception | } Apperception |
| 2. | { Thought
(Notion) | (a) Comparison
(b) Condensation | |
| 3. | { Application
(Power) | | |

II. Herbart and Ziller

- | | | |
|----|---------------------|---------------------------------|
| 1. | Clearness | { (a) Analysis
(b) Synthesis |
| 2. | { Association | |
| 3. | { System | |
| 4. | { Method (Function) | |

III. Rein

- | | |
|----|--------------|
| 1. | Preparation |
| 2. | Presentation |
| 3. | Association |
| 4. | Condensation |
| 5. | Application |

With the above may be compared the designations given the formal steps by the following American writers:³

I. De Garmo

- | | | |
|-----|---|--|
| I. | Apperception
(Sense perception)
Concrete Illustration | { 1. Preparation—Analysis
2. Presentation—Synthesis |
| II. | Abstraction | |
| | | { 3. Comparing and uniting, or
Induction, Association (Socratic)
4. Formulation of Notional—Deduction; from which we descend again to particulars. |

III. From Knowing to Doing—Application

²Page 145.

³De Garmo, Charles, *Herbart and the Herbartians*, p. 139.

II. C. A. McMurry

- | | | |
|-----------------|---|----------------------------------|
| I. Presentation | { | 1. Preparation |
| | | 2. Presentation |
| II. Elaboration | { | 3. Association and Comparison |
| | | 4. Generalization or Abstraction |
| | | 5. Practical Application |

In *The Method of the Recitation*, already mentioned, the authors used the five steps just listed, as arranged by Dr. C. A. McMurry. That they believed these constituted the *one* correct order of instruction, is shown by the following:

"If the leading thoughts thus far presented are true, there are certain steps in instruction that are universal. No matter what the study be, whether Latin, mathematics, science, or some other, there is a certain order that the mind must follow in acquiring knowledge. . . . Since these steps are passed through in this invariable order without reference to the nature of the subject matter presented, they are rightly called the Formal Steps of Instruction. They indicate the order of the movement of the mind, or of the forms through which thought must pass in reaching full maturity."⁴

In this book the authors used the double-column form for subject matter and method⁵ and advocated making a detailed plan, including questions to be asked. As late as 1914, we find Dr. Charles McMurry, in his book *Handbook of Practice for Teachers*,⁶ advocating close adherence to the plan made.

These writers insisted in these early years upon the importance of ideas as the vital element in the teaching results as shown by the following:

" . . . he who takes proper care of the ideas that enter the child's mind, seeing to it that they are thoroughly understood and interesting, is determining to a considerable degree the kind of person the child shall will to be. Of course he cannot determine it entirely, for the child has native tendencies that will assert themselves, but he can do much toward it."⁷

There was also the implication that the center of gravity in the

⁴McMurry, Charles and McMurry, Frank, *op. cit.*, p. 214.

⁵Chapter 14. Macmillan Edition.

⁶Pages 35-52.

⁷McMurry, Frank, "The Value of Herbartian Pedagogy for Normal Schools," *N. E. A. Report*, 1892: 421-433.

educational process is without the child—a theory closely in harmony with the underlying psychology that growth comes through assimilation of presentations. This point of view is seen in the expressions:

"But unless they are told in some way what the recitation is aiming to accomplish, they are ignorant as to what they should search for; of course, then they are helpless and must be led along blindly. . . ."

" . . . that aim is useless which does not immediately catch their attention and set them to work, and that one is worse than useless which seems to them unattractive and even repellant."

" . . . these are the requirements of the aim which is to be given the children at the beginning of the recitation."

"As a rule the mistake is made of hastening altogether too rapidly to reach the exact wording that the book or teacher prefers. . . ."

"The teacher is more than a simple taskmaster, and his function as a taskmaster should remain in the background till other and better means of stimulus fail."⁸

One other point of emphasis by these writers is their insistence upon care in wording questions in leading children through the formal steps. In this connection is noteworthy the fact that the first edition of *The Method of the Recitation* included a chapter on the Socratic method of teaching. Two quotations illustrate Dr. Frank McMurry's early interest in thinking, and questioning as a stimulus to thinking:

"Another thing the child would gather from this is that he is to understand that new problems are constantly rising before him to be solved."⁹

" . . . whatever secures lively thinking, whatever guarantees the tendency to think, should rank as the highest direct object of the recitation."¹⁰

This early interest of Dr. McMurry in problem solving and careful questioning is to be related to the point of view which he has advocated since the beginning of the twentieth century relative

⁸McMurry, Charles and McMurry, Frank, *op. cit.*, pp. 99, 100, 103, 135, 182 and 313. Edition of 1897.

⁹*N. E. A. Report*, 1891: 179. For a similar point of view, held by James D. Hughes, Inspector of Schools, Toronto, Canada, see *N. E. A. Report*, 1897: 162-169. It is strikingly prophetic of some of the questions being discussed to-day.

¹⁰*N. E. A. Report*, 1894: 843.

to problem solving¹¹ and to the form and content of the lesson plan.¹²

Records of educational meetings in this decade from 1890 to 1900 are replete with addresses on topics concerning this new movement in education. The formal steps of instruction were first discussed at the National Education Association in a round table meeting in 1891.¹³ Educational magazines likewise were utilized in furthering the discussion of these doctrines. In amount of space devoted to these questions in both the *Educational Review* and the reports of the National Education Association the peak year of this decade was 1896.

SUMMARY

1. The Herbartian ideas in education were brought to this country by a group of young men who studied in Germany in the decades centering about 1890.
2. By a campaign of translating the writings of noted Herbartians, writing books and articles developing the doctrines further, and speaking at public educational meetings, they created much interest in these theories in the last decade of the nineteenth century.
3. Those Herbartians especially interested in the formal steps of the recitation and the consequent theory of lesson-planning were Charles De Garmo, Charles McMurry, and Frank McMurry. The latter two set forth their theories on lesson-planning in *The Method of the Recitation*.
4. The Five Formal Steps came to be familiar terms in educational writings.

¹¹Page 26.

¹²Page 36.

¹³*N. E. A. Report*, 1891: 835.

CHAPTER IV

THE RECEPTION AND DEVELOPMENT OF HERBARTIANISM, PARTICULARLY THE FORMAL STEPS OF INSTRUCTION

I. AS INDICATED BY BOOK REVIEWS

As an index of the reception of these Herbartian ideas, a few sources are interesting. One is the reviews of books published by the Herbartians. A few quotations will indicate the spirit:

"Competent judges are not likely to question that the most powerful stimulus which is now acting upon American educational thought bears the stamp of Herbart."¹

"It treats of questions that not only are burning but are getting hotter and hotter all the time. Outside an inner circle of Herbartians, and a very small and select inner circle, too, not much has been known in this country about Herbart, and, to tell the truth, few have cared to know until recently. But the members of this little circle of elect have been persistent and even obstreperous; they have urged their views in season and out of season; certain that they had the truth in their possession, they have laughed at criticism and have been laughed at with equanimity. Now those who came to scorn are remaining to pray. . . ."

"Without entering into a discussion of the merits of this school, we cannot fail to acknowledge its influence is on the increase. Even those who cannot agree with all its doctrines ought to be glad to own that its influence for good has already been strongly felt."^{2,3}

¹Hinsdale, B. A.: Book Review of DeGarmo's *Herbart and the Herbartians* in *Educational Review*, 1895, Vol. 9: 192-197.

²Thurber, C. H., Editor: Book Review of DeGarmo's *Herbart and the Herbartians* in *School Review*, Vol. III: 301-302 (April, 1895).

³See also: (a) Russell, James E.: Book Review of Harris's *Herbart and Pestalozzi Compared* in *School Review*, Vol. 1: 383 (June, 1893). (b) Thurber, C. H., Editor: Book Review of Herbart's *Science of Education* as translated by Mr. and Mrs. Felkin; *School Review*, Vol. 2: 113 (February, 1894). (c) Burk, Frederic: Book Review of *The Method of the Recitation* by Charles McMurry and Frank McMurry in *School Review*, Vol. 12: 429-433 (1904).

This last review is most interesting. While Dr. Burk states that "the influence of Herbart is a tremendous factor in the educational world," he asserts that the "authors have been the leaders and chief propagandists of this insurrectionary movement for the last decade" and calls their doctrine, that the five formal steps constitute the only true order in learning, "a hot breath of medieval dogmatism to be blowing in the twentieth century."

II. AS INDICATED IN EDUCATIONAL ADDRESSES, REPORTS,
AND MAGAZINES

In the Report of the Commissioner of Education for 1894-1895 is an article by Dr. Rein on "The New Education in Germany." In the preface to it we find:

"The recent movement among teachers in the United States toward the introduction of Herbart's principles and practices of education has found many advocates and adherents. . . . There are at present more adherents of Herbart in the United States than in Germany."⁴

"I am, indeed, anxious to know just what my young friends mean."⁵

In 1901, Dr. White published a book on *The Art of Teaching*. Concerning lesson-planning he said:

"In determining the order and method of presenting different lessons, care should be taken to avoid running them into one mold. It is easy to adopt a general lesson-plan and then force the presentation of every lesson into it. Such a procedure is almost sure to become a monotonous routine, devoid of spontaneity and life. . . .

"The lesson-plan was one of the early hobbies of the normal school. When the writer first began to visit schools, he found it easy to recognize the graduates of certain normal schools by their method of presenting lessons. . . . No two lessons permit precisely the same presentation.

" . . . it is the teacher's function to determine the aim and purpose of a given exercise. . . . The questions of pupils, when pertinent, should receive due attention, but these should not determine the subject matter of instruction.

" . . . lessons vary greatly in subject matter, and hence the steps taken in teaching them must vary. All knowledge is not required by the same mental processes, and it follows that all knowledge cannot be taught in the same way or by the same steps."⁶

"But no criticism approaches the trenchant, incisive thrusts with which Dr. W. T. Harris—that master in German philosophy and metaphysics—probes Herbartianism to the very core: ' . . .

⁴Vol. 1: 322-329.

⁵White, E. E., *N. E. A. Report*, 1895: 346. This is taken from an account of a discussion in which "the young friends," F. M. McMurry, Francis W. Parker, Charles DeGarmo, Charles McMurry, and Nicholas Murray Butler, had been the speakers.

⁶Pages 109-116.

we deprecate the tendency, very strong in some quarters, to seize upon the views of some leader of educational thought across the water and magnify them out of all proportion in the attempt to engraft them on our American system of instruction.' . . . Dr. Harris does a good service in pointing out so clearly Herbart's weaknesses and errors."⁷

"Herbart and Herbartianism is rich in devices, artificial courses of study, forced adaptations of painfully selected excathedra details to cruder generalizations of child life—schedules without end."⁸

"A new psychology. . . , an accumulation of knowledge . . . have created an activity in planning that has caused some to exclaim 'Method run mad.' . . .

"We hear much of a school of Herbartians, . . . and some there are who would seem to discover in these words and the processes they represent patent modes of thinking that would substitute for the natural laws of mental action."⁹

"The mind and its ideas do not stand apart as the 'formal steps' assume, in harmony with the Herbartian psychology, in general. The lessons given by the Herbartians, illustrating the formal steps, are frequently quite numerous in their shiftings to make the steps work out; thus betraying the evil of the consciousness of formal method."¹⁰

"Herbart's individuality was hard and mechanical though his doctrine of apperception gave promise of something better and more vital."¹¹

"Herbart, regarding the soul as he did, looked chiefly to the instruction. He viewed pedagogy as an architectural system. According to Herbart's psychology, that is the light in which instruction is seen, but objections to that psychology appear in the article under discussion. The Froebelian view is better, and this, back of the Herbartian pedagogy, makes the child a greater factor. The difference lies in the fact that we have, according to Froebel,

⁷*Education*, Vol. 16: 175 (November, 1895). Editorial concerning the article by Dr. Harris, Commissioner of Education, in the same issue of the magazine.

⁸Hailman, Mrs. Eudora L., Discussion, *N. E. A. Report*, 1895: 545-546.

⁹Green, James M., Principal of State Normal School, Trenton, New Jersey, *N. E. A. Report*, 1897: 67-73.

¹⁰Tompkins, Arnold, "Herbart's Philosophy and His Educational Theory," *Educational Review*, Vol. 16: 233-243 (1898).

¹¹Butler, Nicholas Murray, "Status of Education at the Close of the Century," *N. E. A. Report*, 1900: 188.

a larger native force in the child than according to Herbart. Still, there might be an objection to the Froebelian view because of the ignoring of the personality of the teacher."^{12, 13}

When the Committee of Fifteen made its report to the National Education Association in 1895, a sub-committee of five, all city superintendents, made a report on the "Training of Teachers," in which they ignored the Herbartian point of view. They recommended that courses in pedagogy should include discussion of the relative value of individual and class instruction, study of the art of questioning, review of the common branches, and the technique of investigation. They outlined the steps preparatory to practice teaching, including among them writing plans of lessons and series of questions, adding:

"All this work should have its due proportion only or evil may result. For example, lesson plans tend to formalism, to self-conceit, to work in few and narrow lines, to study of subjects rather than of pupils."¹⁴

In connection with the report of the Committee of Fifteen, the Commissioner of Education, in his report of 1896-1897, included an essay, entitled "The Latest Movements in Education in the United States," by Dr. Schlee, of Germany. In discussing particularly the report of the sub-committee of the Committee of Fifteen on the "Correlation of Studies," a report which was made by W. T. Harris, we find the following:

"The consequence was that after the report was read in Cleveland, February 19th to 21st, 1895, the debate disclosed an almost universal and violent opposition. However, the study of educational questions, especially the Herbartian pedagogy in America, has received a stronger impetus than it would have received if the report had represented Herbart's views. According to information received from an American educator, there have never been such animated discussions in the educational world in America as at present. The United States, it is said, resembles a hotbed of pedagogical discussion, over which the gods must rejoice."¹⁵

¹²McMurry, Frank M., Discussion, *Fourth Yearbook of the National Herbart Society*, 1898: 114.

¹³Other criticisms may be found, as follows: Reel, Miss Estelle, Supt. of Public Instruction, Wyoming, *N. E. A. Report*, 1897: 151-154. Welton, James, "A Synthesis of Herbart and Froebel," *Educational Review*, Vol. 20: 109-122 (1900). Hall, G. Stanley, "Normal Schools, Especially in Massachusetts," *Pedagogical Seminary*, Vol. 9: 180-192 (1902). Boone, Richard, Discussion, *N. E. A. Report*, 1902: 213. Bolton, Frederick E., *N. E. A. Report*, 1907: 611.

¹⁴*N. E. A. Report*, 1895: 236-253; also *Educational Review*, Vol. 9: 209-229 (1895).

¹⁵Vol. 11: 178-185.

A recent comment is interesting as a closing criticism:

"Then the 'Five Formal Steps of Instruction' were imported from Germany, opposing the teaching of isolated facts and grouping them around generalizations. While they effected a big improvement, they had one almost fatal defect; by accepting generalizations or abstractions as the center of organization, they tended to make the entire instruction abstract. The problem plan tends to remedy this defect, as the problem is a very concrete, specific expression of the learner's need."¹⁶

III. AS INDICATED BY THE STUDIES MADE OF NORMAL SCHOOL PRACTICE IN TRAINING TEACHERS

A third source of information relative to the reception and development of Herbartian ideas, especially relative to lesson-planning, is to be found in the studies of normal school practice in training teachers, which have been made since the introduction of Herbartianism. Some of these are in the nature of addresses, others in the nature of analysis of the returns of questionnaires.

In 1907, Wm. C. Ruediger published an article on "Recent Tendencies in the Normal Schools of the United States." The significant thing in this article for our study is the fact that nothing is said in any way related to the question of lesson-planning.¹⁷ The same is true of the study of Joseph M. Gwinn, on "Tendencies in the Content of Courses of Study in State Normal Schools."¹⁸

In 1913, W. H. Sanders, of the State Normal School, of LaCrosse, Wisconsin, published the results of a study, entitled "A Study of Professional Work as Presented in the State Normal Schools of the United States." For this study he sent questionnaires to one hundred sixty-three state normal schools, receiving eighty-one answers. Section IV of the questionnaire was devoted to lesson plans. Eighty furnished data on this section. Fifty-seven out of a total of seventy-two normal schools follow a definite form of plan which is practically the same for all subjects and for all grades.

"Summarizing the 'essential' points in a lesson plan as indicated by the different schools we have a total of forty-one. The number of 'essential' points varies in the different schools from one to seven.

¹⁶McMurry, Frank M., *Twenty-second Yearbook of the National Society for the Study of Education*, 1923, Part II: 295.

¹⁷*Educational Review*, Vol. 33: 271-287 (1907).

¹⁸*Educational Review*, Vol. 39: 156-164 (1910).

The fifty-seven schools that use a definite form of plan show extreme variations as to what constitute the essentials of the plan. This difference of opinion raises the question as to what are the really 'essential' points in a lesson plan. Is it advisable to leave the 'essential' points to individual supervisors or critics as reported by some schools? Does the absence of agreement in any school on 'essentials' encourage individuality as indicated by other schools? If the lesson plan hampers worthy individual activity, should not the entire scheme be abandoned? The almost universal use of the written lesson plan in normal schools indicates that it has a place in the training of teachers, but the data show that the lesson plan has not had the careful consideration necessary to make it yield its highest service."

The report includes a query relative to the importance of the inclusion in the plan of details enough to indicate that the student teacher understands the psychological processes taking place in the minds of the children. There was found almost every conceivable variety of opinion. The discussion may be summed thus: "The plan should show explicitly, rather than implicitly, the activity which the teacher proposes as a result of his procedure."¹⁹

In 1913, Frances Jenkins reported finding that the normal school student was able to plan his work efficiently.²⁰

In 1915 F. J. Kelly and Ira O. Scott reported a study made in which they sent 100 questionnaires to state normal schools of the west and north. Sixty-eight replies were received. They reported the figures from the "median" school. The facts included such items as: (1) This school has 2.2 times as many children in training school as student teachers during the year. (2) It has 14 student teachers each year to each critic teacher. (3) It has about 5½ times as many members in the entire faculty as in the training school faculty, and (4) It requires 160 hours of student teaching for graduation. However, nothing is reported relative to requirements and training in lesson-planning.²¹

In 1917 A. M. Santee reported a paper prepared for a seminar in the University of Illinois, based upon a questionnaire sent to

¹⁹Sanders, W. H., *Pedagogical Seminary*, Vol. 20: 48-55 (March, 1913).

²⁰Jenkins, Frances, "The Training of Teachers in Service: Adjusting the Normal-School Graduate to the City System," *N. E. A. Report*, 1913: 448-452.

²¹*Educational Administration and Supervision*, Vol. 1: 591-598 (November, 1915).

all public normal schools, of which seventy replies were received from thirty-five states. Relative to the preparation of lesson plans, he reports:

"All schools reporting require the preparation of lesson plans by the practice teacher. No uniformity exists in these requirements. A few schools require plans in all subjects; more state that the requirement is made in certain subjects only, such as nature study, domestic science and manual training. The period of time covered by these plans varies widely. One week in advance seems to be the most frequent requirement, but one day in advance is common. Other reports of periods covered were: for the entire year; ten weeks; for the entire term; one semester; a unit of subject matter must be covered regardless of time; one month; and two weeks. A tendency is shown to require formal plans at first; then outlines only, until ability to outline well and teach by outlines is developed; then to reduce the number of plans required."²²

In the *Eighteenth Yearbook of the National Society for the Study of Education*, A. R. Mead reported a study made by means of a questionnaire sent to the schools and colleges of education and to the departments of education listed in the *Bulletin* of the United States Bureau of Education. Sixty-two reported that they require daily lesson-planning by practice teachers, four that they do not; 38 reported that the supervisors plan daily, 17 that they do not, and 63 reported that both practice teachers and supervisors plan daily, and five that they do not.²³

In 1919, the Eastern State Normal School of Illinois issued a bulletin by Dr. Lester M. Wilson, entitled "Training Departments in the State Normal Schools in the United States." In response to a questionnaire sent out by him, Dr. Wilson received answers from thirty-seven heads of training departments and from forty-eight critic teachers, representing a total of thirty-nine schools.

The least elaborate plan reported involves three heads: (1) What I am going to teach; (2) Why I am going to teach it; and (3) How I shall proceed. Dr. Wilson seems to think a more detailed plan advisable for training teachers and assumes that planning is merely a means toward training, "since students, when they take regular position, will probably not write lesson plans."

²²Santee, A. M., "The Organization and Administration of Practice Teaching in State Normal Schools," *School and Home Education*, Vol. 37: 8-13 (September, 1917).

²³Part 1: 292-344.

However, he suggests the desirability of so teaching that the students will continue writing plans after graduating. He is of the opinion that "the simpler the form of plan used in the normal school the greater the possibility of habituating students to such plan-writing as will be continued after graduation."

He reports the following form as characteristic of the form used by many schools:

"Lesson No.

Date.....

Subject of Day's Work

- I. Aim: (In definite statement, not topic form).
- II. Basis assumed: (That which the teacher assumes the pupil must know and does know as a basis for comprehending the new lesson).
- III. Preparation: (Recall of facts, creating atmosphere for particular work; stimulating class by giving incentive for day's work; statement of pupil's aim by teacher or pupils).
- IV. Presentation: 1. Thought steps, in statement forms, logical order, and general summary. 2. Methods or devices; pivotal questions and special devices numbered to correspond with parallel thought steps.
- V. Assignment: 1. For class study period. 2. General statement of problems for next teaching lesson."

Dr. Wilson mentions the fact that some schools excuse from plan-writing in the advanced stages of practice. He reports that "plans are submitted for the approval of critic teachers from two days to a week in advance of the teaching of the lesson."²⁴

From a study of the problems of conducting practice teaching, H. C. Pryor made a proposed series of thirty-one graded tasks for inducting students into teaching. Number 26 is as follows:

"Planning Work. For the day, week, or longer period, at first, in coöperation with regular teacher. The student teacher should plan for individual instruction, supervised study, group teaching, extra-curricular activities, and playground work as carefully as for 'responsible room teaching'."²⁵

In a study entitled "Virtues and Defects of Normal School Training as Seen by Graduates of Two, Five and Ten Years' Service," J. A. Kirkley gave this among the virtues:

"The graduates of eight and ten years ago called attention to the value of the study of methods and management, the history of

²⁴*The Normal School Bulletin* (Charleston, Illinois), No. 66, Oct. 1, 1919.

²⁵*Educational Administration and Supervision*, Vol. 5: 411-422 (November, 1919), or Vol. 8: 373-382.

education, the philosophy of education, and psychology, and to the value of the practice of requiring the student to work out a *well-organized plan* for presenting a lesson to a class."²⁶

William B. Aspinwall reported similarly on "The Value of Student-Teaching in a Teacher-Training Course, as Judged by Graduates of One, Two, Three, and Four Years' Experience," from which we quote the following:

" . . . I admit most frankly that much time is saved by having a definite plan of a lesson and the teaching of it is more interesting and easier to the teacher and the children profit by this preparation and teaching.

"The lesson in all its parts—preparation, planning, teaching, and its results have been of course dependent upon the work required and upon the supervision.

"In this (student teaching) I learned to economize time in planning my work for my classes. . . . I know the making of plans daily for a year helped me to form a habit so that today I can plan a lesson many times on a moment's notice.

" . . . During that time (in student teaching) I learned how to plan work. I also learned the value of having a definite plan of work for the week or month for economizing time in teaching as well as for obtaining definite results.

" . . . Because there were a certain number of lesson plans to be made every night and because it was necessary to have them fully and clearly done and ready for inspection by a supervisor at any time, I learned to economize time in preparing them.

" . . . It (the experience in student teaching) has been of great help to me in saving time in the preparation of lessons. . . . In planning my work I learned to make my plans definite if I wished to get results; to plan the lesson in a logical manner and in as interesting a way as possible. I found that much illustrative material was necessary, and reference books for both teacher and pupils were things to be thought of in preparing the lesson. My experience helped me in obtaining definite results by teaching me always to have an aim, to accomplish this aim through interest, and by giving me a knowledge of several methods by which I might obtain the best results.

²⁶*Ibid.*, Vol. 7: 103-110 (February, 1921)

" . . . By actual practice, I acquired a clear understanding and a workable basis for the preparation of my lessons, and the methods of teaching them.

" . . . I have tried to plan every lesson I have taught by the standards which were held during student-teaching."²⁷

IV. AS INDICATED BY THE CATALOGUES AND OTHER PRINTED
MATTER ISSUED BY SOME NORMAL SCHOOLS

The Oswego Normal School seems to have been one of the first to use the formal steps of instruction. In a circular issued in 1891 and also in a circular issued in 1892 we find a statement concerning the psychology course. Among the additional topics to be discussed is: *(excellent)*

"4. The four steps of instruction:

- a) Clearness
- b) Comparison
- c) System
- d) Philosophical application."²⁸

On the other hand, the *Report of the State Normal School at Trenton, New Jersey*, for 1893, does not indicate any acceptance of Herbartianism or the steps of instruction. The detailed outlines of all its courses are given, including psychology, history of education, and science of education. In discussing the work of the practice school we find, "The Practice Teaching is so arranged that experience in teaching is given to each student in each of the common branches. This experience consists in observing the regular teacher, preparing plans for teaching subject to the approval of the critic teacher, and actually teaching, both in the presence and absence of the regular teacher."²⁹

In 1895 the Kansas State Normal School issued a booklet entitled "General Directions for Pupil Teachers in the Training Department." In it we find the following:

"The outlines of lessons which all are asked to prepare should, as the blanks indicate, show both the matter to be given and the manner of teaching it. . . .

²⁷*Educational Administration and Supervision*, Vol. 7: 267-273 (May, 1921).

²⁸Circular of the State Normal and Training School, Oswego, New York, p. 28, 1891. Also Circular of the State Normal and Training School, Oswego, New York, p. 26, 1892.

²⁹*Thirty-ninth Annual Report of the Trenton, New Jersey, State Normal School*, 1893, Part 1, p. 86.

"The outline of lessons will show just what is to be the matter and manners of the recitation of each day, giving the date and day of week. It will show also what portion of the regular class text-book is to be covered by each lesson and will give definitely any other sources from which matter may be chosen for any particular lesson. . . .

"It is expected that something will be done in the matter of methods in every outline. . . . Indicate briefly with each day's lesson anything special planned for conducting that recitation."³⁰

A copy of the form in use in the Kansas State Normal School in the latter part of the last decade of the nineteenth century indicates the two columns, the one "On Matter," the other "On Method." Nothing further is given to suggest the following of the five formal steps.

The annual catalogues published by the Illinois State Normal University, at Normal, Illinois, from 1893 to 1898 inclusive, state that the pupil teachers must submit plans of work to their critic teachers for criticism and make such revision as is necessary. In the catalogue for 1898-99, under the description of the course in pedagogy we find the following:

"3. Some time is given to a discussion of the general laws underlying method of instruction (or the so-called "Formal Steps of Instruction") and of kindred pedagogical principles bearing upon the work of the teacher in the classroom. It is the aim of this work to show what the laws of thought are that determine how the teacher should present a subject to the class. For this work McMurry's *Method of the Recitation* is used as a text."

The catalogue published in 1899-1900 states that the plans for the recitations must be handed in one week in advance.

V. AS INDICATED BY THE WRITINGS AND ADDRESSES OF THOSE PARTICULARLY INTERESTED IN TRAINING TEACHERS

As the Herbartian doctrines became promulgated throughout the United States, we find an increasing number of people, engaged in training teachers, discussing theories relative to lesson-planning.³¹ An examination of these addresses and writings reveals an acceptance of planning as a *means of training* student teachers. Several

³⁰Kansas State Normal School, General Directions for Pupil Teachers in the Training Department, p. 4.

³¹See footnote on page 33.

definitely stated that the requirement of written detailed plans should be withdrawn as soon as ability is demonstrated. Some required detailed written plans at first, followed by skeleton plans later. Nearly all endorsed giving the student freedom in following the plans later. Dr. Sheldon³¹ definitely stated that plans for a given week should be handed in the previous week. Dr. Cook was the only one of those listed³¹ who mentioned writing a plan according to a form and he endorsed it.

In view of the fact that the men who are chiefly responsible for bringing the formal steps of instruction to this country came from the Normal University, at Normal, Illinois, it is interesting to note that the report of the committee from that faculty stated that the plan should include

1. The topic to be presented.
2. The lesson movement.
 - a. Mental
 - b. External
3. What the student expects this lesson to do toward the development of the child.

The article by Professor Hancock³¹ is noteworthy in that he proposes five different types of plans, depending upon the type of work, and stresses the problem-solving aspects of all planning.

³¹Among others, these are significant:

Stout, Kate D., Trenton, New Jersey, Normal School, *N. E. A. Report*, 1895: 700-706.

Hall, John W., "Professor Rein's Practice School at Jena and Its Lessons for American Normal Schools," *N. E. A. Report*, 1896: 644-649.

Sheldon, E. A., "The Practice School as a Public School," *N. E. A. Report*, 1896: 651-659.

Noss, Theodore B., Discussion, *Educational Review*, Vol. 14: 379-383 (November, 1897).

Report of the Committee on Normal Schools, *N. E. A. Report*, 1899: 836-882.

Hall, John W., "Discussion of Report of Committee on Normal Schools," *N. E. A. Report*, 1899: 896-899.

Brown, Marion, Principal of New Orleans Normal School, *N. E. A. Report*, 1899: 902-903.

Cook, John W., President of State Normal School, DeKalb, Illinois, *N. E. A. Report*, 1900: 276-287.

Committee of the Faculty of the State Normal University, Normal, Illinois, "The Relation between Theory and Practice in the Training of Teachers," *2nd Yearbook of the National Society for the Study of Education*, 1903, Part II: 9-38.

Harwood, Samuel E., "The Training School as a School of Observation and Practice," *N. E. A. Report*, 1909: 557-561.

Hancock, John A., State Normal School, Mankato, Minnesota, "The Place of Reasoning in Teaching," *Pedagogical Seminary*, Vol. 18: 184-196 (1911).

Willard, J. Monroe, Principal of Philadelphia Normal School for Girls, *N. E. A. Report*, 1912: 890-896.

VI. AS INDICATED BY THE ELABORATION AND MODIFICATION
OF THE FIVE FORMAL STEPS IN THE PERIOD SINCE 1900

Attention has already been called ³² to the insistence of Charles McMurry in his *Handbook of Practice for Teachers* that the teacher must hold firmly to his plan. In this same book we find his use of the term 'pivotal questions.' In the files of the *Atlantic Educational Journal* for 1907-1909 we find he edited some lessons on Industrial Geography. In the first of these he used as form, the statement of the teacher's aims, the preparation, and the presentation. In each of the last two use is made of questions and some answers. The later lessons abandoned any form further than topical headings.

Similarly, it is interesting to note in writings of John W. Hall a shift from the formal steps, advocated in the last decade of the last century, to lesson plans consisting of the statement of the aim and an account describing or indicating the procedure. Others given by him have not even the aim stated.

The period from 1900 to 1915 is characterized by much activity in elaborating and modifying the formal steps. In 1905 Wm. C. Bagley published *The Educative Process*, containing a very careful elaboration of the formal steps. Similarly George D. Strayer's *Briefer Course in the Teaching Process*, published in 1911, gives a detailed discussion of the formal steps. The files of the *Atlantic Educational Journal* from 1907 to 1918, referred to above, indicate an interesting development from the adherence to the formal steps. The early issues contain a number of lessons. Each of these early numbers also contains a general outline, to be followed in writing a plan. We quote this general form:

"General Outline for Topic Plans

(1) Title (2) Previous Related Topics (3) Grade (4) Teacher's Main Aims

I. Subject Matter.

Old experience that will help the learner to appreciate the new. (That experience out of which the pupil builds his aim.)

N. B. Place the word Assignment before parts of the topic to be worked out as study. Word these questions

I. Method of Teaching.

Questions or work to help the pupils recall such part of their past experience as will cause them to desire to undertake, understand, and appreciate the new.

N. B. Place the words *Testing Assignment* before questions and exercises

³²Page 19.

and exercises as they are to be written in the Assignment Note Books.

II. Subject Matter.

The newer experiences in order of familiarity: in the best order of experiencing.

III. Results.

The results expected from the work on this topic. (These need not be immediately forthcoming.)

which are intended to test pupils' understanding of the assigned work; i. e., to see if he is ready to study for and by himself. (Pupils' aim developed. It should be stated here in the plan.)

II. Method of Teaching.

Questions and work to cause the children to experience the newer work.

N. B. Same as N. B. of I above.

III. Method of Testing.

Questions and work to test the results of I and II. (Review should be review rather than merely re-statement, and will often serve as part of I of another related topic.)

Probable Number and Length of Periods Required."³³

In later numbers lesson plans are given of varying degrees of simplicity. Some contain the aim, followed by the procedure. Others contain the aim, followed by a simple statement of what is done, usually in narrative form. Some are merely outlines of subject matter. Others begin with an outline of subject matter which is followed by a series of questions accompanied by some answers, intended to indicate the movement in developing the lesson. Others are characterized by a statement of the detailed subject matter, preceded by the statement of the general aim, the teacher's aim, and the pupils' aim. Running through nearly all is a tendency to indicate procedure by a series of questions.

In 1915 Dr. Lida B. Earhart published her book, *Types of Teaching*, in which she gave some suggestive lessons built on the formal steps of the Herbartians. But she clearly indicated that the five formal steps were not suited to all types of lessons. The book contains suggestions for other types of lessons, varying far from the formal steps.

In 1909, Dewey published his book, *How We Think*, in which he compares the analysis of a complete act of thought with the five formal steps, showing the marked resemblances. But he points out that there is a marked difference in that, in the thought, the problem is the center. He further states that there is no prescribed order in which the steps occur, and hence they should not prescribe the course in developing a lesson.

³³Vol. III-IV: p. 10 (September, 1907).

Stephen S. Colvin, in 1919, published an article discussing his experiences in training teachers by means of requiring lesson plans. He advocated a plan made up of a carefully stated aim, a detailed account of method, consisting largely of questions that probably will be needed, and a statement of the results, written after teaching the lesson.³⁴

Perhaps the most interesting modification from the formal steps is the statement of Frank McMurry in the winter of 1922, to his students, that no one needs a piece of paper larger than three inches by three inches on which to write a lesson plan. This, together with his insistence upon the teacher's preparation resulting in the formulation of two, three, or more pivotal questions to be used in guiding the class discussion, shows a conception of lesson-planning far removed from the formal.³⁵

In Monroe's *Cyclopedia of Education*, published in 1914, Henry Suzzallo describes the lesson plan as a helpful agency in training inexperienced teachers, but condemns the writing of detailed plans by trained and experienced teachers. He says that such a teacher needs only a knowledge of the purposes of the school and a scholarly command of the fundamental principles of teaching and for the rest can depend upon insight and inventiveness in the face of classroom situations.

One other aspect of the problem of lesson plans is the attempt by some to make the series of plans a record of what is accomplished. As early as 1883, DeGarmo described a procedure in training teachers in which the student teacher was required to keep a careful diary of all his plans and the work.³⁶ Dr. Thomas Stowell, principal of the State Normal School at Potsdam, New York, suggested a similar idea when he proposed a method of retrospection of his work by the student teacher at the close of each recitation.³⁷

Dr. Wm. B. Aspinwall of the Worcester State Normal School, similarly, pointed out the value of such a record when he suggested a weekly written report or review.³⁸ A recent article on lesson plans by Stephen Colvin emphasized this value to be derived from a series

³⁴*Eighteenth Yearbook of the National Society for the Study of Education*, Part I: 190-212.

³⁵Here and in the quotation given on page 18, Prof. McMurry represents different points of view and emphasis. This divergence indicates two periods in his educational career: (1) Herbartianism and (2) Problem solving.

³⁶*N. E. A. Report*, 1883: 47-54.

³⁷*N. E. A. Report*, 1894: 115-121.

³⁸*Educational Review*, Vol. 63: 379-394 (May, 1922).

of lesson plans, in that by writing the results after each lesson the series becomes a diary of the work done and thus objectively reveals to the student what he has accomplished.³⁹

SUMMARY

1. As indicated by a survey of the book reviews, educational articles, and addresses, reports, statistical studies of normal school practice, normal school catalogues, and expressed attitudes of normal school teachers, there was much criticism but a general acceptance of much that the Herbartians taught. Normal schools quite generally taught the five formal steps of instruction.
2. The first decade of the twentieth century shows a marked development of the formal steps, with emphasis upon the use of questions in unfolding the subject matter.
3. There is evidence in the first and second decades of the twentieth century of a growing tendency to abandon the formal steps, adhering to parts, notably the aim, accompanied by a developmental procedure consisting largely of questions.
4. The functions of lesson-planning which appear are:
 - a. An evidence to the critic teacher of readiness to teach a lesson.
 - b. An aid in the preparation of the student teacher.
 - c. An aid to the supervisor of teachers in service.
 - d. An index and record of work covered.
5. There is an opinion held by many engaged in training teachers that lesson-planning should be a temporary means to be abandoned when skill in teaching has come.
6. A few have advocated the policy of keeping a record or diary of work accomplished in connection with planning.
7. All discussions found of planning of lessons assume that the center of gravity is in the teacher or subject matter, not in the child.

³⁹*Eighteenth Yearbook of the National Society for the Study of Education*, Part I: 190-212.

CHAPTER V

PRESENT ATTITUDES AND PRACTICES RELATIVE TO LESSON-PLANNING

I. THE METHOD OF SECURING THE DATA

To determine what the present attitudes and practices are relative to the various problems involved in connection with lesson-planning, three questionnaires were prepared. These questionnaires were: (1) Form A, addressed to state normal schools and state teachers' colleges in the United States; (2) Form B, addressed to classroom teachers; and (3) Form C, addressed to those having responsibility for the work of teachers—administrators, supervisors, principals, and critic teachers. These were sent out in November, 1922. They were as follows:

FORM A. FOR NORMAL SCHOOLS

1. Name of school.
2. Location.
3. Do you teach your students, taking teacher-training, how to plan lessons?
4. Do you require students to write lesson plans:
 - a. In theory courses?
 - b. In practice teaching?
5. Indicate the form of lesson plan you use by checking items descriptive of what you use, or by adding other items:
 - a. A printed form.
 - b. Details of subject matter and method written out.
 - c. "Five Formal Steps" followed.
 - d. Plan consisting of a list of the items to be taken up in the period.
 - e. Plan consisting of an outline of the subject matter.
 - f. All questions to be asked stated specifically.
 - g. Plan consisting of a set of pivotal questions.
 - h.

(If a printed form is used, a copy will be greatly appreciated.)
6. How long in advance of teaching the lesson must the plan be made?
7. How closely do you require that the plan be followed in the teaching of the lesson?
8. When does a time come at which you excuse the student teacher from handling in lesson plans?
9. From writing them?

10. What difference do you make in your requirements for plans for geography and history as compared with the requirements for plans for spelling and penmanship, for example?
11. In what course or courses is lesson-planning taught?
12. How much time is given to teaching lesson-planning?

FORM B. FOR TEACHERS

1. Sex.
2. Present position, or last if not at present teaching.
3. Place located.
4. Number of years of experience in teaching.
5. Education and professional training.

KIND OF SCHOOL	WHERE LOCATED	NO. YEARS	DIPLOMA	DEGREE
High School				
Normal School				
College				
Art School				
Business School				
Vocational School				
Music School				
Summer School				
Other Study				

6. Were you taught to plan your lessons before teaching?
7. Please indicate the form of plan required:
 - a. A printed form.
 - b. Details of subject matter and method included.
 - c. "Five Formal Steps" followed.
 - d. Plan consisting of a list of items to be taken up in the period.
 - e. Plan consisting of an outline of the subject matter.
 - f. All questions to be asked stated specifically.
 - g. Plan consisting of a set of pivotal questions.
 - h.
8. How long in advance of teaching the lesson were you required to make the plan?
9. Did there come a time when you were permitted to teach without handing in plans? If so, when?
10. Do you now plan?

11. If so, what of the items under "7" tell the form you use?
12. How long in advance of teaching it, do you now plan your lessons?
13. How closely do you follow your plan in teaching?
14. If you have abandoned the methods of planning you were trained to use, will you state your reasons?
15. Are you required to plan? To hand in plans?
16. To whom are you to hand your plans?
17. How much freedom do you have to vary from the plan in actually teaching the lesson?
18. If you were free to do as you wished, would you plan?
19. If so, what sort of plan would you write? Use items in "7" to indicate answer.
20. What do you advise for training young teachers relative to lesson-planning?

FORM C. FOR SUPERINTENDENTS, SUPERVISORS,
PRINCIPALS, CRITIC TEACHERS, ETC.

1. Sex.
2. Present position, or last if not now teaching.
3. Place.
4. Number of years of experience in classroom teaching.
5. Number of years of supervisory and administrative experience.
6. Education and professional training.

KIND OF SCHOOL	PLACE LOCATED	NO. YEARS	DIPLOMA	DEGREE
High School				
Normal School				
College				
Art School				
Business School				
Vocational School				
Summer School				
Other Study				

7. Do you believe teachers should be required to plan their lessons?
8. If so, please indicate the form you advise:
 - a. A printed form.
 - b. Details of subject matter and method included.
 - c. "Five Formal Steps" followed.
 - d. Plan consisting of a list of items to be taken up in the period.
 - e. Plan consisting of an outline of the subject matter.

- f. All questions; to be asked, stated specifically.
 - g. Plan consisting of a set of pivotal questions.
 - h.
- (If a printed form is used, a copy will be greatly appreciated.)
- 9. How far in advance of teaching should the lesson be planned?
 - 10. How closely should the plan be followed in teaching?
 - 11. When would you release a teacher from the lesson-planning requirement?
 - 12. Do you advise training prospective teachers to write plans?
 - 13. If so, indicate the form you advise by using items under "8".
 - 14. Were you trained to write lesson plans?
 - 15. When engaged in classroom teaching, did you plan?
 - 16. How far in advance of teaching the lesson?
 - 17. What difference do you make in your thought on plans for geography and history as compared with the plans for penmanship and spelling, for example?
 - 18. What do you find is the attitude of classroom teachers toward lesson-planning?

The form A questionnaire was sent to the one hundred seventy-three state teachers' colleges and state normal schools, listed in U. S. Bureau of Education Bulletin, 1922, No. 8. "Statistics of Teachers' Colleges and Normal Schools, 1919-1920, Prepared by the Statistical Division of the Bureau of Education." Form B was sent to former students of Teachers College, selected so as to distribute the number somewhat evenly in all states, accompanying each bunch of questionnaires with a letter asking the one addressed to ask teachers in service whom they could reach to fill out the blanks. Some also were filled by students of education in college, who had been classroom teachers in their last positions. Form C was sent out by a method of selection similar to that used in sending Form B. There were sent out 2559 blanks of Form B, and 1103 were returned and usable. There were sent out 1371 blanks of Form C, and 540 were returned in such condition as to be usable.

II. THE FINDINGS FROM THE INVESTIGATION

From the returns, the following conclusions have been drawn:¹

1. *Relative to Normal School Practice*

In so far as the seventy-two normal schools answering the questionnaire are representative of the entire number of normal schools, we may conclude that:

¹Tables showing detailed findings from the questionnaires may be found in the bound, type-written copies of the manuscript of this book, filed in the library of Teachers College, Columbia University.

1. Normal schools are teaching their students to write lesson plans, (a) to a large extent in the theory courses; (b) in all practice teaching.

2. There is a wide diversity in the form of plan used. Writing out details of subject matter and method has the greatest frequency—62.5% of the schools reporting it. A plan using pivotal questions has considerable prominence, being reported as used by 55.6% of the schools. The outline of subject matter is in almost as great favor, being reported by 52.8% of the schools. The use of a list of items to be taken up is in almost as much favor, being reported by 41.7% of the schools.

A notable item is the fact that only 19.4% report using the five formal steps, and 9.7% report using a modification of the five formal steps. Of these only 2.8% use these formal steps exclusively. It is further to be noted that the requirement that all questions to be used in the lesson be stated specifically, is made by only 15.3% of the schools.

3. There is no agreement in practice relative to the time in advance that a plan must be handed in. The requirement of one week in advance still leads, but the per cent is only 13.9. The one day requirement is represented by 9.7%. Combining the one-day and two-day requirements, we have a total of 20, or 28.1%. This does not include those that block out in advance and then make daily detailed plans. The tendency, then, seems to bear toward preparation a short time in advance of teaching.

4. While some of the Herbartians advocated strict adherence to the plan, we find the normal schools are not doing so now. They seem to be allowing varying degrees of freedom. The most notable response is the number who report "As needs develop" to be the guiding principle.

5. There is a strong tendency, 40.3%, to require that plans be *handed in* throughout the period of practice. The significant answer is, however, the 34.7% who report that they excuse students from handing in lesson plans when they show ability. This number, combined with these 22.2% who usually excuse near the end of the period of practice, makes a total of 56.9% who do excuse. This may be interpreted as indicating a tendency to look upon written plans as a *means* toward expediting practice teaching, or as a *means* toward learning how to teach,—not as an essential to good teaching.

6. The practice of excusing pupils from *writing plans* seems less common than the practice of excusing them from handing in plans. There are 58.3% who never or seldom excuse entirely from writing as compared with 40.3% who excuse from handing in; 26.3% excuse from writing according to ability as compared with 34.7%, who for this reason excuse from handing in plans. Combining varied answers, we have 40.2% who do excuse from writing as compared with 56.9% who excuse from handing in.

7. There is a tendency to recognize a difference in the plan requirements for such subjects as history and geography on the one hand and penmanship and spelling on the other, making the former more detailed, and giving more attention to the organization and development of subject matter, thus recognizing a difference in the nature of the teaching in these two classes of subjects.

8. There seems to be no uniformity in the courses in which lesson-planning is taught. Apparently it is scattered throughout the normal school curricula. Twenty normal schools have it taught in only one course.

9. The time given to teaching lesson-planning varies widely, forty-six different answers being given. There is apparent no law controlling the matter.

2. *Relative to the Attitudes and Practice of Classroom Teachers*

The teachers answering this questionnaire were fairly well distributed geographically, representing all but ten of our states and some foreign countries. The group is largely a group of women, as is characteristic of the teachers of our elementary schools. They are teachers of sufficient experience to be possessed of attitudes and ideas on the question of lesson-planning, the median of their experience being 8.9+ years, Q_1 being 5.1 years, Q_3 being 14.9 years, and the range from an experience of a few months to an experience of 44 years. The normal school training is shown by the facts that 59.3% are normal school graduates and 72.9% attended normal school. This makes these teachers superior to the average in this country in point of training and of experience. Of the total number 87.6% were taught lesson-planning. We may accept these statements made by them as the opinions and practice of those who are relatively competent to have judgments concerning lesson-planning, because of their training and experience.

From the returns of these 1103 teachers, we may conclude that they hold to the attitudes and practices indicated by these facts:

1. The five formal steps were taught to 47.2% but are now used by 10.9%.

2. Details of subject matter and method were taught to 52.0% but are now used by 19.2%.

3. A list of items to be taken up, as constituting a plan, was taught to 25.7% but is now used by 54.2%.

4. The use of pivotal questions in planning was taught to 17.7% but is now used by 22.8%.

5. There is little difference between the kind of plan now used and the kind that would be used if the teachers had complete freedom to do as they please.

6. There is a tendency toward planning only one day before teaching as shown by the fact that 16.6% were so trained but 23.1% now do so, and the fact that 34.9% were trained to plan a week in advance and only 15.8% now do so. There is evident a great variety of views in this matter, both in training and in practice.

7. There is not a very close harmony with normal school practice relative to excusing from handing in plans during training, 30.2% reporting being excused as compared with 56.9% reported by the normal schools. This may mean a changing attitude on the part of the normal schools since these teachers were trained.

8. In this group 94.6% make the unqualified statement that they now plan, and 3.4% report some planning.

9. Comparing the report of these teachers with that of the normal schools we find the teachers showing a tendency to follow the plan somewhat more closely than normal schools require. Noteworthy, because it is contrary to the apparent tendency toward freedom, is the fact that 2.27% report following *exactly*.

10. The reasons given for abandoning the methods of planning which they were taught indicate a desire to use time more wisely, a seeking for methods which are more adaptable and more suitable to the needs of the growing child and to the type of work being done.

11. There is a strong tendency to require teachers to plan, 61.0% reporting an unqualified "yes" to Question 15, and 3.3% giving a qualified affirmative answer.

12. There is a tendency much less strong than in normal schools to require that plans be handed in, as shown by the requirements

made of these teachers, 22.4% making an unqualified affirmative answer, and 32.6% reporting negatively. Because of an error in printing, some questionnaires omitted this question, making a blank report for 31.3%. Hence conclusions in this matter are unsafe.

13. There is much freedom to vary from the plan as shown by the fact that 66.5% indicate that they have freedom and 5.3% indicate that they have a limited freedom.

14. These teachers believe in planning, as shown by the fact that 89.8% say they would plan if free to do as they please, and 4.1% make a qualified affirmative answer. Only 1.5% say they would not plan.

15. In response to the question as to what these teachers advise relative to training teachers to plan, only 1.4% question the wisdom of it. A considerable number, 18.6% refrained from expressing opinions. The remainder practically all favor planning, although they vary in their ideas as to form. There is evident a tendency to shape planning so it will take account of the children's activities.

3. Relative to the Attitudes and Practices of Those Having Responsibility for Those Who Teach

Those answering this questionnaire were geographically well distributed, representing all the states but six, as well as several foreign countries. The group is made up of 27.8% men and 72.2% women. The positions held seem fairly inclusive of positions of such responsibility available. The median in experience in teaching is 10.0 years with Q_1 5.9 years, Q_3 15.3 years, with a range of from none to forty years. The median in supervising or administering is 5.6 years with Q_1 3.2 years, Q_3 10.3 years, with a range of from a few months to 31 years. Of the whole group 72.2% attended normal school, the lowest percentage, aside from the small miscellaneous group, being in the group of administrators, 59.2%. The highest percentage, 88.3%, is in the group of critic teachers.

From the reports of these administrators and supervisors we may conclude that:

1. The members of all the groups believe teachers should be required to plan, the per cents answering "Yes" ranging from 94.3% to 98.0%. It is interesting to note that the lowest per cent comes from the administrative group, although the difference is slight.

2. There is a marked tendency to emphasize outlining subject matter and pivotal questions in indicating the form of lesson plan, outline of subject matter being indicated by 46.3% and pivotal questions by 51.9%, while the five formal steps are indicated by only 13.9%. The details of subject matter and method are indicated by 33.1%.

3. There is a great difference in point of view relative to the length of time a lesson should be planned in advance of teaching. One day is favored by 15.6%, one week by 16.9%, numbers somewhat in agreement with the reports of the teachers, which were 23.1% for one day and 15.8% for one week.

4. Relative to the closeness in following a plan, there is a rather interesting paralleling with the reports of the normal schools, and of the teachers. On the whole the administrative-supervisory group indicate a little more flexibility than do the teachers.

5. Relative to releasing a teacher from lesson-planning, 24.3% would never do so, 16.6% would never entirely, and 3.2% would not during practice teaching. The administrators and supervisors show a greater tendency in this direction than do normal school people. There is a total of 27.6% who would release when efficiency is demonstrated. The critic teachers show this tendency most strongly, 35.6% of them favoring it, while supervisors have only 8.5% of their number favoring such release. Perhaps this is attributable to a different point of view relative to the function of lesson-planning, the critic teachers looking upon it as a means to learn how to teach, the supervisors as a means to promote good teaching or perhaps as an aid to supervision.

6. Training prospective teachers to write lesson plans is favored, as shown by the fact that 89.3% of this group answer with an unqualified affirmative. There are two teachers who give a more emphatic affirmative reply. There are qualified affirmative answers from 6.3%.

7. The form recommended varies much, 29.6% recommending details of subject matter and method; 25.2% recommending outline of subject matter; 25.7% recommending pivotal questions; but only 10.7% recommend using the five formal steps.

8. This group contains 67.8% who report that they were trained to write plans. Within the groups we find only 51.1% of the administrators, but 85.6% of the critic teachers, 71.2% of the normal school teachers, and 72.3% of the supervisors were so

trained. There were 6.1% of the whole group who reported a little training.

9. Planning was practiced by 81.5% of this group when teaching. Only four, or less than one per cent, reported that they did not plan. The smallest group reporting affirmatively was the administrative group, 77.6%.

10. There is wide variation in answer to the time in advance of teaching when the plan was made. It is interesting to note that 15.7% report planning one week in advance and 15.7% report planning one day in advance. Other answers like "usually 1 day" and "1 day at least" increase the prominence of the day period. The different groups show no appreciable difference in their practice in this matter.

11. In planning to teach geography and history the tendency is to include more detail, use pivotal questions, organize on problem solving, give more attention to organization of subject matter, and plan more closely in relation to life situations and children's needs; while the plans for spelling and penmanship are looked upon as more mechanical, more formal, more or less set, following the lines of drill.

12. This administrative-supervisory-training group contains 39.3% who believe teachers look upon planning unfavorably, but 9.4% who report the teacher's attitude as good or excellent and 13.88% who report the attitude as favorable. The lack of harmony of this group with the attitude of the 1103 teachers, 89.8% of whom reported that they would plan if free to do as they pleased, may be explained in the fact that a large percentage of the 1103 were trained in normal schools to plan, while the administrative-training-supervisory group deal with a large number of untrained teachers. The 1103 are not a typical group of classroom teachers.

SUMMARY

1. Planning is approved quite generally by supervisors, administrators, and those engaged in training teachers.
2. There is a wide diversity in opinion as to the form of the plan. The most favored elements are (a) outline of subject matter, (b) details of subject matter and method, (c) pivotal questions, and (d) a list of items indicating the proposed procedure. There is a very small number who favor the five formal steps.

The writing out of every question to be asked is not approved by any considerable number.

3. The former custom of handing in plans for a week in advance is being displaced by a tendency toward planning nearer to the time of teaching, notably a day in advance. This seems in accord with the tendency to take account of the children's activities when planning.
4. There seems no noticeable tendency to insist upon close adherence to the plan.
5. Planning seems to be regarded variously as:
 - a. An agency in the process of training teachers.
 - b. An agency in supervision, particularly to inform substitute teachers of the new lesson.
 - c. A means toward better teaching so long as one teaches.
6. There is a considerable number who favor excusing students in training and teachers from planning or from handing in plans when sufficient ability and experience are attained. This suggests, on the one hand, a view of planning as a crutch, and, on the other, a view of it as a safety device of those in responsibility over teachers.
7. There is marked recognition of the difference in procedure in such drill lessons as obtain in much of the work in spelling and writing, and in such investigative work as obtains in teaching history and geography, implying that no one form of lesson plan will fit all needs.
8. There is a very pronounced approval of the training of teachers to plan.
9. The forty different plans returned with questionnaires reveal a general effort to modify form, but a tendency to hold on to the old form as much as possible.

CHAPTER VI

SOME SUGGESTIONS RELATIVE TO CONTINUOUS PREPARATION OF DAILY WORK IN THE CONDUCT OF INSTRUCTION

I. THE BACKGROUND

The conceptions relative to the preparation of lessons, which have been traced in the foregoing chapters, cover a century of distinct progress in educational theory. These varying conceptions have been based upon changing ideas relative to (1) the psychology of the learning process, (2) the nature and function of the school, (3) the selection and use of subject matter, (4) the method of training teachers for the conduct of instruction, and (5) the method of administering and supervising instruction.

1. *Previous to 1820* the psychology of the learning process does not appear to have received much consideration by teachers in this country. The faculty psychology was generally accepted, with the faith in the transfer of training which it implied. Learning was a process of mastering subject matter—largely an act of memory. The school was not yet generally conceived as a public institution. Its function was that of preparing children for those needs which the future would bring to them. There was a minimum of subject matter, usually characterized as the “Three R’s.” There was little notion of teaching as a profession, nor of the possibility of professional training.

2. *The period from 1820 to 1860* does not appear to have modified belief relative to psychology. The school, as a public institution, seems to have become a reality. One writer has called this the period when the country school was most influential. It still was a place where one learns primarily for the future. The subject matter continued to be regarded as a prescribed thing with no thought of selection in relation to the child’s needs. There was, however, a wider range of subjects taught. The normal school was established as a definite institution together with the development of the idea of teaching as a profession. With the establishment of the normal school arose the problem of developing a tech-

nique in training teachers. There has been found no evidence that this technique was developed to any extent in this period. Planning lessons does not seem to have been used as a method in training teachers. Little attention seems to have been given to the teaching process. Supervision of teaching had not developed.

3. *The period from 1860 to 1890* was the period of active interest in object teaching. Psychologically the emphasis was placed upon the importance of perception as a means of learning. Emphasis was still upon learning as a process of storing knowledge for future use. The school was the agency of society for preparing children for adult needs. Some attention was placed upon child activity, particularly in the lower grades, due to the influence of the kindergarten. Subject matter continued to be something imposed upon the child. It was selected relative to adult needs. The method of training teachers gradually included the device of exacting "written sketches" of lessons before teaching. Due to the object-teaching influence, lessons tended to be formed after the object-teaching ideas. This gave emphasis to questioning. The double-column of subject matter and method was used early in this period. Later, plans for lessons were developed, differing from the form used in object teaching, and emphasizing ways of fixing facts.

4. *The period from 1890 to 1900* was the period in which Herbartian psychology was introduced. This was a psychology of growth by acquiring new ideas which were added to the apperceptive mass of ideas constituting the individual. The process of assimilating new ideas was by induction. Hence the learning process was said to consist of (1) *preparing* the individual for new ideas, (2) *presenting* the new to him, (3) so guiding him that, by the process of induction, he compared the new materials with themselves and with past ideas, and abstracted the common element appearing, (4) seeing that he stated this new notion as a generalization, and (5) seeing that he made further application of it. This theory of the movement in teaching was embodied in the so-called five formal steps—formal because it was believed all teaching should be fitted to this form. Much emphasis was placed upon the use of carefully worded questions. The five formal steps were rapidly taken over by the normal schools as an essential element to be used in training teachers. Subject matter was much enriched. Through the manual-training influence much more value was given to activity. But subject matter was still regarded as an end, imposed

upon the child because he would need to know it some day. Supervisors and administrators came into the use of lesson-planning as a means toward directing school work.

5. *The period from 1900 to 1923* is a period of transition. The new psychology, which began to be disseminated and developed at the close of the century, discredited not only the faculty psychology but also the Herbartian psychology and doctrines. The influence of the Herbartian movement was so strong, however, that this period is characterized by extensive use of the formal lesson plan. At first the five formal steps were developed and refined into great detail. By the middle of the period changes became apparent in the form of the plan, changes proposed and used by the former leaders of Herbartianism. As the period continued, changes continued, but they were usually characterized by an attempt to hold on to as much of the old as possible. These changes have been due in part to the new psychology of learning definite responses to given situations. They are in part due to the growth of the idea that democracy should be a characteristic of the school. John Dewey's teaching that the school is intrinsically a social organization was largely responsible for the new theory of the nature and function of the school. Likewise subject matter began to be looked upon as a *means* in furthering the activities going on in the school.

This period is then to be regarded as a transition period in which educators have been shifting the point of view relative to the learning process and the nature and function of the school and its subject matter, a period of great activity in training teachers and in supervising instruction, both of which made much use of lesson-planning; and consequently a period in which dissatisfaction arose with the forms of lesson plans being used, dissatisfaction because these forms did not harmonize with the newer theories of education.

II. THE PROBLEM

It is evident then that lesson-planning, based upon the formal steps of instruction, is not suitable to the needs of to-day. There is a general dissatisfaction with the attempt to mold lessons according to these formal steps and at the same time conduct the class work according to modern principles of education. As a result plans of great variety are being devised, but in most cases those who attempt innovations seem inclined to depart as little as possible from the traditional, for they are attempting to inject

modern spirit into the old form. And so we are confronted with the problem of how to guide teachers in the preparation of lessons to the end that better teaching may result.

The difficulties which confront teachers and supervisors relative to lesson-planning are:

1. The plans generally used do not fit the present-day psychology.
2. They assume that teaching is merely testing study and presenting subject matter.
3. They are built upon a theory of prescribed, imposed subject matter.
4. Planning much in advance does not sufficiently take account of needs and particular interests of the growing child, for when planning much in advance these can not be seen.
5. Not all class work can be fitted into one general procedure.
6. Not all class activity is developmental, as the formal steps assume.
7. There is a need for a record of class progress which the plan does not meet, for it does not indicate what was accomplished. A record is needed which is both projective and retrospective.
8. Lesson-planning as usually taught has been too time-consuming and has not made the student teachers learn to regard planning as essential to good teaching.
9. Planning has been looked upon as a device or means toward learning to teach and therefore has been regarded as a temporary expedient.
10. Too often the plans have been obviously a requirement to meet the convenience of critics or supervisors or administrators, to inform them of what is contemplated, and to inform substitute teachers as to what to do.
11. Plans have usually failed to deal with the activities of children, giving their attention only to presentation of subject matter.
12. Planning, as usually administered, has tended to make the lesson a separate entity, not an integral part of a growing activity.
13. There has been an over-emphasis of questions and answers when considered in the light of the total school-room activity for which the teacher must prepare.

In attempting to formulate some principles relative to meeting the need for better guidance in the preparation for instruction, a statement of the principles underlying modern education is here offered, followed by the implications of these principles for planning.

III. PRESENT THEORIES RELATIVE TO INSTRUCTION*

1. *The Nature of the Learning Process*

a. *The learning process is based upon self-activity.* Learning comes only through the activity of the one who learns. It is the process of making new connections in the nervous system or modifying those already existing. These connections are such as to cause the individual to do certain things in given situations. This connection-forming comes about only as the learner himself is active. The drive or dynamo is in him.

This process is something that is always going on in the growing individual. Learning is inevitable. It is neither intermittent nor spasmodic. The child is always doing something and it is this activity which causes connections to be formed. This continuum of activity constitutes the experience process. Its nature depends upon the kind of environment which supplies the stimuli to call out responses, and also upon tendencies to respond which are already existent in the individual. As the environment is varied, varying responses are called forth. As satisfaction and annoyance result connections are established or weakened. Hence there is going on a constant reconstruction of connections. This continuum of activity thus results in a reconstruction of experience. To the extent that this reconstruction is guided into building up desirable connections that make for growth, the resultant is educative.

b. *Instruction consists of guiding the activity by*

1) *So selecting the environment that stimuli are acting which lead to desirable responses.* No action takes place without some form of stimulation to call it forth, external or internal. The instructor, then, may modify the nature of the activity by modifying the environment which is stimulating it.

2) *So shaping the satisfiers and annoyers that desirable learning takes place.* When a response is made to stimulation, satisfaction results if this response fulfills the set toward which the individual is reaching, and if the concomitants are desirable. The resulting satisfaction tends to strengthen the connections, while annoyance tends to weaken them. Applying these principles, the instructor may so shape conditions that the concomitants are favorable to

*The theories here given are the author's, made in the light of whatever she has been able to gain from whatever sources were available. The informed will recognize the sources of much that is presented.

such responses as are desirable. Instruction is then a method of education which works indirectly through the modification and control of the environment. This is done through simplifying the elements; through adding needed desirable elements; through eliminating as far as may be the undesirable elements; and through stabilizing by giving a better balance to the various elements.

2. The Function of the School

a. The school is an agency of society designed to further the learning process to the end that there may be provided the means for control of social life. In this sense society is reaching beyond itself, striving to become a better social order. The public school is unique in that it is the only agency of society where lines of cleavage do not exist. It is open to all the children of all the people. The school is, in fact, the only agency of society in which the individual works on a basis of equality with all other children. Here no lines of social distinction obtain. It is a living process providing environing conditions which may be lacking in the other social situations in which the child lives. Here he learns to live in a social situation, i.e., he learns to live with others. Here he obtains the measure of himself in his relations with others. Here he learns to lead and to follow.

b. The outcomes of the school life are in terms of knowledge about the actualities of life, habits and skills essential in the living process, attitudes toward the problems and conditions of life, and appreciations of the values of life. These can be established only under the conditions of learning. This means only as one engages in life experiences can he form habits of living or appreciations relating to life values.

c. The method of the school is one of conducting a rich living process in which the children are guided in their activities so that a fullness of experience may result bringing about the desirable growth. It is only as we live that we learn to live. Living in a social situation is the essential in learning to live socially. Thus the school must be thought of as a society in itself. The children learn as they meet the situations arising in living in this society. This living comes through the activities engaged in. The stimuli to activity are such as the situation inherently provides. To the extent that the school situation stimulates to rich full living, to

that extent is desirable growth taking place,—knowledges, habits, attitudes, and appreciations are being established.

The guidance to activity is obtained through modifying the environment, guiding the selection of activities, helping in the evaluation of purposes and achievements, and bringing about satisfiers and annoyers which will serve to establish the desirable outcomes. The teacher is himself a member of this social group. He is the most experienced member of the group. He is the one charged with the responsibility of guiding the process toward the desirable outcomes.

This school life includes doing a great variety of things which appeal to the children of the given age and environment, striving to become possessed of the skills needed for doing things as individuals and as groups, developing interests which lead into new fields of investigation, learning to understand the activities of the outside world which concern the members of the school group,—a continuous process of making life more meaningful, effective, and satisfying.

3. *The Nature of Instruction*

a. *Instruction is designed to help the child to reach in better directions, to achieve the ends toward which he is reaching, and to move forward to larger reaches.* It is guidance, not merely or even primarily presentation of subject matter; it is leadership, not catechising. It implies that the teacher know in part at least the details involved in the activity; that he prepare himself for the eventualities that may come, that he be ready to lead the children, step by step, where help is needed; and that he have available resources to supplement and enrich what the children bring to the activity. The Herbartians, believing that development came through assimilation of subject matter into ideas, taught that instruction consisted largely of right *presentation* of subject matter. The process of instruction centered in the teacher. The child was not regarded as vitally responsible for the process. With the present theory that learning comes through the activity of the learner, such subject matter is secured as is needed in furthering the activities. The instructor guides the child in getting the needed subject matter and in carrying his activities through.

b. *Subject matter is a means toward this growing process.* It is not presented to the child because it is a desirable acquisition.

It is sought by the child as he needs it in attaining his ends. Knowledge of facts becomes valuable as this knowledge serves in accomplishing things attempted. Skills are acquired as they are needed in activities. The skills are developed by the child because they serve his ends. He gets the subject matter he needs and in so doing learns how to get subject matter when he needs it.

c. The center of gravity is in the child and his growth, not in the subject matter. Whereas the school once assumed that the subject matter was fixed and must be imposed upon the child, now it is coming to be regarded as relative to the child's growing needs. The *constant* is the growing process. The *variable* is the particular elements of subject matter needed. To the extent that the growth taking place is normal, that the environment is a truly social one, to that extent the subject matter needed in carrying out the activities will involve a constant minimum, characteristic of living in such an environment. The point to be emphasized is that the subject matter is fitted to the child's needs, the child is not to be fitted to the subject matter.

d. The recitation is a time in the school procedure when the children through concerted action seek to achieve certain desirable ends, recognized and purposed by the group. Its characteristic is the social element of *concerted action*. Its name is unfortunate in that it does not give one a true notion of its function. The term arose through the notion that once obtained that it was a time when the children proved to the teacher that they knew the set task by *re-citing* it. With the present theory of education we need a new term suggesting the social element of coming together for the purpose of accomplishing an end through combined effort, of checking up on work accomplished, of securing the guidance of the teacher in evaluating what has been done, and of making further plans. It is a time of social selection toward further ends.

e. The recitation varies in its nature according to the ends to be attained. At times the objectives may be:

- 1) Seeking to acquire a specific skill, recognized as needed.
- 2) Seeking to solve a perplexing problem.
- 3) Seeking to have an enjoyable experience in common with others—a consumer's purpose as distinguished from a producer's purpose.
- 4) Conferring together for the purpose of formulating plans, discussing reports, judging results, or purposing new activities.

- 5) Sharing, in which the individuals bring to the class experiences gained in other situations.
- 6) Seeking to give embodiment to ideas through some form of construction.

By the term, recitation, we mean then a period for working together. This includes the coöperation of all—pupils and teacher. What is done may vary greatly, but the characteristic of such a period should always be consensus of purposes, combination of effort, group consciousness of available ability, and group judgment of results.

IV. THE IMPLICATIONS OF PRESENT THEORIES FOR PREPARATION FOR INSTRUCTION

I. The Nature of Preparation

a. Efficient instruction, conceived of as expert guidance in carrying on the children's activities, calls for very careful preparation for each period spent in work together. The teacher is the most experienced member of the group. He knows most about the implications of the activities being engaged in—their worth, their difficulties, their consequences, their relationships. Therefore he can see farther, can make the experiences richer, more meaningful. Furthermore, he is the one in the group who is charged with the responsibility for the direction the activities take, the outcomes of the effort. He dare not approach the period when he and the children are to come together for group action, without having done all in his power to be ready to meet the needs that arise. Anything less than this would indicate indifference toward his responsibility. He is a member of the group—the most potent member.

b. The preparation for a given lesson should be made after the preceding period of work together. This enables the teacher in his preparation to take full account of what the children are doing and of what they are proposing to do next. Earlier preparation is inadequate because it cannot foresee the direction which the children's activity may take nor the progress they may make. Since teaching is not presenting subject matter in specified quantities, but guiding and furthering activity, it follows that one cannot prepare to further an activity except as he knows what it is.

c. *The responsibility for guiding the direction of the work requires a longer view of it than one day ahead, that this perspective may take account of relative values, alternative directions, and desirable outcomes.* Hence the teacher needs to have in mind the extent and implications of the activity, its range of related subject matter, and the types of activity which may grow out of it. It is well to keep in this same journal of the recitations outlines of such large fields of work.

d. *This daily planning includes:*

- 1) Consideration of possible directions toward which activities may be guided.
- 2) Familiarizing one's self with the details of subject matter which may be involved in making the chosen activities most worth while.
- 3) Considering the procedure best suited to engaging in the activity that learning may result. This involves the application of the laws of learning to the proposed activity.

e. *To further efficiency in instruction, a record of this preparation should be made, including such details as will be useful for the teacher's reference during the period when he is working with the group, or afterward.* This practice of writing out a memorandum of what one has done in preparation, serves to make the thinking tangible, definite, specific. One is more inclined to arrive at a decision if he attempts to write what he concludes. But one should write only what is useful to him. In the stress of group discussion one easily may lose perspective as to relative values; memory of needed facts may fail. It seems highly desirable that the teacher have before him such memoranda as will safeguard him against such momentary lapses of memory or judgment. The teacher's task is one of guiding and stimulating activity, not one of exhibiting feats of memory. The degree of detail in the written memoranda will vary much with the type of work, the amount of experience, and the degree of familiarity with the material involved. The written statement will be such as will help the teacher to hold in mind what he thinks will happen, stated in what seems to him the probable order in which it will occur.

f. *The practice of checking over this written memorandum of preparation, immediately after the work of the group is adjourned, will make of it a record of the work from day to day, serving as a*

journal for future reference. It takes but a few minutes to check the things that were done, and make note of questions raised, activities proposed or agreed upon, work to be done before the next group meeting, and valuable references or illustrative material brought in by individuals. Such a journal becomes most valuable as an index of the work accomplished, the growth made. It also indicates probable new lines of growth and activity.

g. *Because of the diversity of activities for which preparation should be made no one procedure can be used in preparing for all situations. For this reason any set form for recording and preparation made seems inadvisable.* The kinds of things a group may do together are numerous and varied. Preparation for guiding these things does not imply fitting all of them into one mold. To do so is impossible. The attempt to do so results in a cumbersome kind of artificiality not conducive to real instruction and leadership.

The five formal steps constituted a definite form for a lesson plan. It was in harmony with a psychology of learning which taught that the individual must be *prepared* for the new subject matter; this subject matter must be *presented* to him; through the process of apperception it must be assimilated into the self; and it must then be further used. All learning was believed to consist of this sequence of steps. Therefore, all instruction must conform to this sequence and consist of the so-called five formal steps.

With a changed conception of learning and instruction where the teacher's work is guiding activities of varied kinds, we find ourselves confronted with the necessity of confining ourselves to no one form.

h. *In essence, the memorandum of preparation should contain:*

- 1) *An enumeration of the things one expects will happen, stated in the probable order of happening.* The amount of detail here will vary with experience and with the type of work contemplated.
- 2) *A memorandum of such details of subject matter as the convenience of the teacher may find valuable, because they are thus made immediately available.* In many instances no such memoranda are needed. The subject matter to be used may, however, be somewhat new or organized from a new point of view. In such cases the teacher's efficiency is greatly increased if the memorandum is helpful.

- 3) *A memorandum of assignments that were agreed upon, of lists of illustrative or constructive material that may be desirable, and of references that may be useful. Definiteness of detail on the teacher's part is conducive to definiteness on the part of the children. Adherence to purposes set up needs reënforcement by a type of leadership that takes account of essential details.*

- i. *The degree of detail written out in a plan should depend upon the degree the teacher feels she needs.*

In judging what should be written, relative to preparation for instruction, the teacher should use the criterion of helpfulness to himself in the process of instruction. There seems no other justifiable reason for using time in writing what one prepares for his work.

2. *Considerations Relative to Preparation for Instruction, Involved in Training Teachers*

- a. *Novices, in preparing for their work, should be encouraged to write out detailed statements of their preparation. These details should include only such items as will be helpful to them and as will be so recognized by them. Imposition of more than this is not conducive to building up the desirable attitude toward preparation. If the labor of written preparation is valuable, it must be because of its effect upon the quality of instruction. Hence only such details as are conducive to better instruction should be included.*

- b. *Critic teachers should gain their information as to the preparedness of the student teachers from these written statements, supplemented by conferences when necessary. Acquaintance with the field of activity involved and knowledge of the limitations of inexperienced teachers, will enable the competent training teacher to locate weaknesses in the preparation and see that they are strengthened before the work is actually conducted. Requiring laborious details which seem unnecessary to the student teacher may save the critic from using constructive imagination, but it is deadening to interest in vital preparation for instruction.*

- c. *This work of practice teaching should be regarded as a controlled laboratory experiment is regarded, in that the critic teacher should reduce the new factors involved for the young teacher, in a given period, to a very small number. Other problems involved in*

the work to be conducted should be safeguarded by the critic teacher even to the extent of pointing out ways of conducting these other factors connected with the activity. This will obviate the use of too laborious details in writing lesson plans. When a student has demonstrated ability to guide a given kind of activity, it seems unnecessary for him to write out the detailed steps every time such work recurs with his class.

d. *The critic teacher's work should be so organized as to provide for receiving the student teacher's written statement of his preparation and holding conference upon it after the immediately preceding lesson.* Under existing conditions this is practically impossible for some critic teachers. Nevertheless, the practice of handing in the statements of detailed preparation for a given lesson several days in advance of teaching is a contradiction of the whole theory of instruction as guiding activities, and makes it a process of imposing subject matter. Such a practice cannot truly take account of what the children are doing.

e. *The student teacher's acquaintance with the subject matter involved should be evinced in the general outline of the field covered by the activity and in the memoranda of needed subject matter noted from day to day in the journal.* Thorough acquaintance with subject matter on the part of the critic teacher will enable him to detect weaknesses in preparation without imposing the requirement of writing out full details.

3. *Considerations Relative to Preparation Involved in the Supervision and Administration of Teaching*

a. *The classroom teacher should make daily preparation for his work.* Failure to do so means indifference, or at least an inferior sort of leadership. Because social environment is constantly changing, the subject matter pertinent to the consideration of any problem varies with the occasion. Failure to use pertinent details is conducive to low standards of work with the children. No amount of experience in teaching removes the necessity of organizing anew one's thinking relative to a given situation and of selecting data pertinent to carrying out the proposed activity. If the classroom work is conducted on the lines of group coöperation already suggested, the teacher must give time to evaluation of work being done, consideration of directions which the work

may take, and judgment of the worth of proposed activities in terms of possible outcomes. This means careful preparation on the part of the teacher.

b. A memorandum of this preparation should be written in the journal of the work going on, but it should be written in such detail only as will be of value to the one who writes it. The practice of supervisors and administrators in making specific exactions as to what shall be written seems not to be conducive to building up a desirable attitude toward preparation for instruction.

c. The journals of daily preparation should be open to supervisors and administrators, serving as an index of work done and of work proposed. If the teacher follows the suggestions already made of keeping in this journal outlines of the possibilities of activities being engaged in, and memoranda of daily preparation, followed up by a habit of checking work done and noting ideas proposed by the children, the supervisor will find such a record invaluable in giving an indication of what is going on. The supervisor who knows his work ought to find this adequate without imposing any exactions of his own.

d. Such a journal will be sufficient as a guide to substitute teachers. The practice, prevalent in some public schools, of requiring the teacher to write daily plans in order that a substitute teacher may know what to do, in case the teacher should be absent from school, seems a very expensive way of meeting an occasional difficulty. If the written statement is a true index of what is going on, few substitutes can carry on the work by following the brief statement given them. What sort of work occasional substitutes should do is a discussion apart from this study. But to the extent that a substitute attempts to help the children continue the work that is in progress, the journal of the teacher's continuous preparation is a far better index for the substitute than any perfunctory statement written because of administrative exaction.

4. Considerations Relative to the Different Kinds of Procedure for Which the Teacher Should Prepare

a. In all recitations where the chief aspects of the work are the formation of more or less automatic responses to given situations, the procedure should be in harmony with approved drill procedure, which includes the following points:

- 1) See that the learner has a definite purpose before he begins attempting the formation of the habit.
- 2) See that the learner knows exactly what to do before beginning practice.
- 3) See that the learner launches the habit correctly.
- 4) See that the learner's purpose include the notion that, having once attempted learning the correct form, he must use the correct form wherever he finds need for the skill; he should not tolerate exceptions.
- 5) See that all practice is conducted with attention. Variation of the details of drill may further this.
- 6) Conclude the practice with a test, that the learner may know how well he is doing.
- 7) Distribute the practice time according to the law of decreasing the practice periods and increasing the interval between practice periods as skill is increasingly attained.
- 8) See that there is definite use of the skill at intervals in the course of the school work.

b. In group activity where the purpose is the solving of perplexing problems, the procedure should be in harmony with the laws of good thinking.

- 1) There must be a difficulty or state of "unsolvedness" of which the child is aware, and he must feel it so keenly as to be possessed of the determination to go ahead in the face of difficulties. The mere statement of a question is inadequate to maximum thinking. There must be the purpose to find the solution. It is the purpose which furnishes the stimulus to all the activity which follows.
- 2) There must be time and opportunity for the pupils to locate and define the difficulty, stating it clearly. The fullness of this phase of the work does not come all at once. Other steps in the thinking process reveal some of these details. Perhaps one does not get fullness of details until he has reached a solution.
- 3) There must be time for the class to receive and note suggested solutions as they occur to individuals. In doing this there is developed initiative in making suggestions. In this step we have one of the finest evidences

of superior ability to think. The ability to do this phase of thinking should be most carefully husbanded and developed. The teacher's skill in leadership in the stimulation of the group action should be concentrated at this point to bring forth the best effort of the individuals. The teacher should strive to develop a class attitude which attaches value to every evidence of effort in this direction.

- 4) These suggested solutions must be elaborated by the class so that they may see the pertinent elements and devise effective ways of testing them out with expediency. Sagacity in seeing the significant elements is primarily a quality of native ability. It cannot be given to those who do not have it. But to the extent that individuals possess this ability it should be valued and utilized. Group work can do much in teaching children to value work of this kind. It can, also, teach them to guard against accepting suggestions without adequate proof. This recognition of the worth of testing and proving is, perhaps, one of the most fundamental factors of group activity in problem solving.
- 5) There must be definite acceptance of the solution which tests out as the true one and rejection of those which failed to meet the tests. This involves a willingness to work, knowing that part of the work is of no value other than for eliminating the wrong suggestions. It further involves willingness to abandon suggestions, which, though cherished and fostered, have been proved of no value. These are qualities difficult to develop. But strength of purpose and satisfaction in successful achievement emphasize the desirability of these characteristics. Group activity in solving problems is of worth in developing these traits.
- 6) There must be use of the solution in further situations. This is but the natural way of showing acceptance and of proving the worth of the effort.
- 7) The preparation for such group work should not necessarily imply the completion of one of these elements in an act of thought before the beginning of another, nor should it imply any fixed order in the procedure.

Between the time when one purposes to solve a difficulty and the time when he arrives at a solution, the activity which goes on contributes in varying order and degree to all of the work involved in solving—locating and defining, making suggested solutions, and elaborating and testing out these suggestions.

- 8) There should be opportunity for making frequent summaries and checking the work with the implications of the problem. Such work tends to emphasize tenacity of purpose, and teach relative values involved in organization. It further helps to see the value of details—their significance in solving problems and ways of getting and organizing them when needed. Such summaries give perspective to the whole activity.
- 9) There should be frequent reference by the class to the problem under consideration; by way of checking irrelevant material and questions.

c. In group activities where the purpose is one of having an aesthetic experience, the procedure should be in harmony with the known principles that govern learning to like the aesthetic, which include¹

- 1) See that the children are exposed to the beautiful under conditions which will bring satisfaction and cause the children to want more of such experiences, and which may lead (a) to an analysis of the factors to be appreciated and (b) to an increased appreciation. It is primarily a consumer's point of view which we wish to develop. In the elementary school, where the attempt is made to give, chiefly, that which all the children need, this seems to be the justifiable point of view. The aesthetics should be the possession of all, but they can be so only as all learn how to come under their influence. This can be learned only by being exposed again and again where the dominant purpose is one of being brought under the influence of the aesthetic

¹Because the investigations that have been made of the milder, more desirable emotions are limited, the present state of knowledge relative to education involving these emotions is inadequate. The control and use of these emotions, however, seem to be fundamentally involved in any attempt to state the principles that underlie guiding child activity in the field of the aesthetics. The best that can be done at present seems to be to state, in terms of the laws of learning, what one should do to bring satisfaction out of such experiences and to cause the learner to seek more of such experiences, on increasingly more valuable levels of the aesthetic life.

element. One must be in a receptive state of mind. One must want to experience those elements to which another may have given form.

- 2) Provide an acquaintance with the related data to furnish material for the background sufficient for the play of the imagery involved in the experience. Giving form to an aesthetic experience involves material details of some sort. The one who gave it form himself found it embedded in a real situation. Real situations are usually made up of commonplace details, the details in turn used in putting the experience into form for others. To the extent that the consumer is familiar with these details to that extent can his imagery play and thus cause him to experience similar emotions. Therefore the teacher, in leading children in an aesthetic experience, should give careful attention to acquaintance with the background of data involved.
- 3) If worthwhile occasions offer, give some opportunity for the children to engage in some form of creative work. To the extent that they try to give aesthetic form to some of their experiences will they learn to value the efforts of those who have produced some of our most cherished aesthetic treasures.
- 4) Encourage a receptive, non-critical attitude.
- 5) Teach the children to regard the acquisition of technical ability as a means toward further appreciation, not as an end in itself, i. e., the children should in this connection, learn such technique and only such, as they recognize as needful in the attainment of their objectives.

d. *In conducting work where the purpose is to construct something, there must be provision for the children to make a definite plan, procure the necessary materials and tools, state and evaluate the steps necessary in the process, make the construction, and judge the results.* In work of this kind, care should be taken to conserve individuality. Constructive work in school does not imply using factory methods for securing uniformity and maximum output. Much care should be exercised in teaching the children to judge results. Constructive work done, which has been delegated to the individual by the group, may be so handled as to yield valuable results in judg-

ing the outcomes. The weight of group judgment should be valued by the teacher who is making preparation to lead a group in constructive work.

e. In conducting conferences where the purpose of the children is to formulate plans, discuss procedure, make and hear reports, propose new activities, or share experiences, the procedure should be such as will develop leadership, encourage and guide initiative, teach adherence to purpose, respect the rights of all in the group, and train for organization of ideas. This is but another way of saying that the school society should be conducted according to the rules for conducting any society where the objectives are identified with the desirable growth of each individual member of the group.

BIBLIOGRAPHY

I. THE HISTORY OF LESSON PLANNING

- ADAMS, JOHN. *The Herbartian Psychology Applied to the Science of Education*. Heath, 1897.
- BLAKISTON, J. R. *Hints on School Management*. Macmillan, 1879.
- BURTON, WM. H. *Supervision and the Improvement of Teaching*. Appleton, 1922.
- COMPAYRE, GABRIEL. *Herbart and Education in Instruction*. Translated by Maria E. Findlay. Thomas Y. Crowell, 1907.
- CUBBERLEY, ELLWOOD P. *Public Education in the United States*. Houghton Mifflin, 1919.
- DARROCH, ALEXANDER. *Herbart and the Herbartian Theory of Education. A Criticism*. Longmans, 1903.
- DE GARMO, CHARLES. *Essentials of Method*. Heath, 1889.
- DE GARMO, CHARLES. *Herbart and the Herbartians*. Scribners, 1894.
- DE GRAFF, E. V. *The School Room Guide to Methods of Teaching and School Management*. C. W. Bardeen, Syracuse, New York, 1877.
- EARHART, LIDA. *Types of Teaching*. Houghton Mifflin, 1915.
- GREENWOOD, J. M. *Principles of Education, Practically Applied*. Appleton, 1887.
- GREGORY, JOHN M. *The Seven Laws of Teaching*. Congregational Publishing Company, 1886.
- HALL, SAMUEL R. *Lectures on School Keeping*. Richardson, Lord and Holbrook, Boston, 1829.
- HART, JOHN SEELY. *In the School Room*. Eldredge and Brother, 17 and 19 South Sixth St., Philadelphia, 1868.
- HERBART, JOHANN FREDERICK. *A B C of Sense Perception and Minor Pedagogical Works*. Translated by Wm. J. Eckoff. Appleton, 1896.
- HERBART, JOHANN FREDERICK. *Application of Psychology to the Science of Education*. Introduction and translation by Beatrice C. Mulliner. Scribners, 1897.
- HERBART, JOHANN FREDERICK. *Letters and Lectures on Education*. Swan Sonnenschein and Company, London, 1898.
- HERBART, JOHANN FREDERICK. *Outlines of Educational Doctrine*. Translated by Alexis F. Lange. Macmillan, 1901.
- HERBART, JOHANN FREDERICK. *Textbook in Psychology*. Translated by Margaret K. Smith. Appleton, 1891.
- HERBART, JOHANN FREDERICK. *The Science of Education*. Introduction and translation by Henry M. and Emmie Felkin. Swan Sonnenschein, London, 1892; Heath, 1893.
- HOLLIS, A. P. *The Contribution of the Oswego Normal School to Educational Progress in the United States*. Heath, 1898.
- HOWLAND, GEORGE. *Practical Hints for the Teachers of Public Schools*. Appleton, 1889.

- HEWETT, EDWIN C. *A Treatise on Pedagogy*. American Book Company, 1884.
- HUGHES, JAMES L. *Mistakes in Teaching*. Barnes, 1887.
- JOHONNOT, JAMES. *Principles and Practice of Teaching*. Appleton, 1886.
- LANGE, KARL. *Apperception*. Translated by members of the Herbert Club. Heath, 1893.
- LINDNER, GUSTAV ADOLF. *Manual of Empirical Psychology*. Translated by Charles De Garmo. Heath, 1889.
- McMURRY, CHARLES. *Handbook of Practice for Teachers*. Macmillan, 1914.
- McMURRY, CHARLES. *How to Conduct the Recitation and the Principles Underlying Methods of Teaching in Classes*. Flannagan, 1890.
- McMURRY, CHARLES. *The Elements of General Method, Based on the Principles of Herbart*. Public School Publishing Company, Bloomington, Illinois, 1892.
- McMURRY, CHARLES and McMURRY, FRANK M. *The Method of the Recitation*. Macmillan, 1897.
- MAYO, ELIZABETH. *A Manual of Elementary Instruction for Infant Schools and Private Tuition*. Home and Colonial School Society's Depository, London, 1860.
- MILLER, HARRY. *Directing Study*. Scribners, 1922.
- PAGE, DAVID. *Advancement in the Means and Methods of Public Instruction*. Wm. D. Ticknor and Company, Boston, 1844.
- PAGE, DAVID. *Theory and Practice of Teaching*. A. S. Barnes and Co., 1847.
- PARKER, FRANCIS W. *Notes of Talks on Teaching, Given at Martha's Vineyard, July 17 to August 19, 1882*. Reported by Lelia E. Patridge. E. L. Kellogg and Company, 1883.
- PARKER, FRANCIS W. *Talks on Pedagogics, An Outline of the Theory of Concentration*. E. L. Kellogg and Company, 1894.
- PHELPS, WM. F. *The Teacher's Hand-Book*. A. S. Barnes, 1874.
- RAUB, ALBERT N. *Methods of Teaching: Including the Nature, Object and Laws of Education, Methods of Instruction and Methods of Culture*. E. L. Raub and Company, Lock Haven, Pennsylvania, 1883.
- REIN, W. *Outlines of Pedagogics*. Translated by C. C. and Ida Van Liew. C. W. Bardeen, Syracuse, New York, 1893.
- SHELDON, E. A. *A Manual of Elementary Instruction, for the Use of Public and Private Schools and Normal Classes, Containing a Graduated Course of Object Lessons for Training the Senses and Developing the Faculties of Children*. Scribners, 1862.
- SOUTHWICK, A. P. *A Quiz-book on the Theory and Practice of Teaching*. C. W. Bardeen, Syracuse, New York, 1884.
- STEWART, I. N. *A Hand-Book for Teachers*. The Midland Publishing Company, Madison, Wisconsin, 1889.
- STRAYER, GEORGE DRAYTON. *A Brief Course in the Teaching Process*. Macmillan, 1911.
- SUZZALLO, HENRY. Article on Lesson Plans. In Monroe's *Cyclopedia of Education*. Macmillan, 1913.
- SWEET, JOHN. *Methods of Teaching. A Hand-Book of Principles, Directions and Working Models for Common-School Teachers*. Harper, 1880.
- SYMPHER, J. R. *The Art of Teaching School*. J. M. Stoddard and Company, Philadelphia, 1872.

- TOMPKINS, ARNOLD. *The Philosophy of Teaching*. Ginn, 1891.
- TONTSCHEFF, NICHOLAS. *Die Lehre von den Stufen des Unterrichts bei Johann Friedrich Herbart*. Druck von Oswald Schmidt, Leipzig, 1899.
- UFER, CHRISTIAN. *Introduction to Pedagogy of Herbart*. Translated by J. C. Zinser. Heath, 1894.
- WHITE, EMERSON E. *Elements of Pedagogy*. American Book Company, 1886.
- WHITE, EMERSON E. *School Management*. American Book Company, 1894.
- WHITE, EMERSON E. *The Art of Teaching*. American Book Company, 1901.
- WICKERSHAM, JAMES PYLE. *School Economy*. Lippincott, 1864.
- WIGET, THEODOR. *Die formalen Stufen des Unterrichts*. Verlag von Jul. Rich, 1888.
- WILSON, LESTER M. *Training Departments in the State Normal Schools in the United States*. Charleston Normal School, Illinois, Bulletin No. 66, 1919.
- Files of:
- Bulletin of the Bureau of Education*, Government Printer, Washington, D. C.
 - Atlantic Journal of Education*.
 - Barnard's Journal of Education*.
 - Elementary School Journal*.
 - Education*.
 - Educational Review*.
 - Educational Administration and Supervision*.
 - Pedagogical Seminary*.
 - Journal of Educational Method*.
 - School and Home Education*.
 - Journal of Psychology*.
- Reports of:
- American Institute of Instruction. 1831-1908.
 - United States Commissioner of Education.
 - National Education Association.
 - State Normal Schools.
- Yearbooks of:
- The Herbartian Society.
 - The National Society for the Study of Education.

II. MODERN EDUCATIONAL THEORY

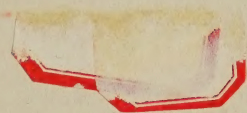
- BODE, BOYD H. *Fundamentals of Education*. Chapters VI and VII. Macmillan, 1921.
- DEWEY, JOHN. *How We Think*. Heath, 1910.
- DEWEY, JOHN. "An Analysis of Reflective Thought." *Journal of Philosophy*, Vol. XIX, No. 2 (Jan. 19, 1922).
- GATES, ARTHUR. *Psychology for Students of Education*. Chapters X, XI, XII, XIII and XIV. Macmillan, 1923.
- JAMES, WILLIAM. *Psychology, Briefer Course*. Chapter X. Henry Holt, 1892.
- KILPATRICK, WM. H. *The Project Method*. Bureau of Publications, Teachers College.
- KILPATRICK, WM. H. Definition of Terms. Part of a Symposium on "The Dangers and Difficulties of the Project Method and How to Overcome Them,"

- Teachers College Record*, September, 1921. Bureau of Publications, Teachers College.
- McMURRY, FRANK M. *Elementary School Standards*. World Book Company, 1913.
- McMURRY, FRANK M. *How to Study*. Houghton Mifflin, 1909.
- MILLER, HARRY. *Directing Study*. Scribners, 1922.
- PARKER, SAMUEL C. *Types of Elementary Teaching and Learning*. Chapters III, IV, V, VII, X, XI, XII and XIV. Ginn, 1923.
- STRAYER, GEORGE D. and NORSWORTHY, NAOMI. *How to Teach*. Chapters II, IV, V, VII and VIII. Macmillan, 1916.
- THORNDIKE, EDWARD L. *Principles of Teaching*. Chapters VII, IX, X, XII and XIV. A. G. Seiler, 1906.
- WOODWORTH, ROBERT S. *Dynamic Psychology*. Columbia University Press, 1918.
- WOODWORTH, ROBERT S. *Psychology, a Study of Mental Life*. Henry Holt, 1921.

III. PRINCIPLES OF TEACHING

- BODE, BOYD H. *Fundamentals of Education*. Chapters I, II, III, IV and V. Macmillan, 1921.
- BONSER, F. G. *The Elementary School Curriculum*. Macmillan, 1920.
- DEWEY, JOHN. *Democracy and Education*. Chapters II, III and IV. Macmillan, 1916.
- DEWEY, JOHN. *How We Think*. Chapters IV and XV. Heath, 1910.
- DEWEY, JOHN. *Interest and Effort*. Houghton Mifflin, 1913.
- DEWEY, JOHN. *School and Society*. Chapters I, II and III. The University of Chicago Press, 1899.
- DEWEY, JOHN. *The Child and the Curriculum*. The University of Chicago Press, 1902.
- GATES, ARTHUR. *Psychology for Students of Education*. Chapters II, III, IV, VI, X, XI and XVI. Macmillan, 1923.
- KILPATRICK, WM. H. Articles in *Journal of Educational Method*:
1. The Meaning of Method. Sept., 1921: 14-19.
 2. The Wider Study of Method. October, 1921: 8-13.
 3. Mind-Set and Learning. Nov. and Dec., 1921: 95-102 and 145-150.
 4. Coercion and Learning. Jan. and Feb., 1922: 182-189; 233-239.
 5. Psychological and Logical. March, 1922: 276-283.
 6. Method and Curriculum. April and May, 1922: 313-318; 367-374.
 7. Disciplining Children. June, 1922: 415-421.
 8. Subject Matter and the Educative Process. Nov., 1922: 94-101; Feb., 1923: 230-237; May, 1923: 367-376.
- MACVANNEL, JOHN ANGUS. *Outline for a Course in the Philosophy of Education*. Particularly pp. 147, 148, 196-202. Macmillan, 1912.
- THORNDIKE, EDWARD L. *Education*. Chapters V, VI, IX and X. Macmillan, 1912.
- THORNDIKE, EDWARD L. *Educational Psychology*. Bureau of Publications, Teachers College, 1913.

- THORNDIKE, EDWARD L. *Principles of Teaching*. Chapters III, VIII, IX and X. A. G. Seiler, 1906.
- WOODWORTH, ROBERT S. *Dynamic Psychology*. Columbia University Press, 1918.
- WOODWORTH, ROBERT S. *Psychology, a Study of Mental Life*. Henry Holt, 1921.





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